

Ecological Services

Program Description and Mission



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*...protecting and
conserving
migratory birds,
endangered species,
and their
ecosystems.
-Ecological Services
Mission*

The mission of Region 3 Ecological Services is to ensure healthy fish and wildlife populations and the health of their environments. The mission is accomplished by protecting and conserving migratory birds, endangered species, and their ecosystems. The following programs assist in accomplishing the Ecological Services mission.

Ecological Services' **Habitat Conservation Program** helps other federal agencies plan projects (e.g., roads, flood control projects, navigation projects) to avoid or minimize harm to fish, wildlife, and their habitats. This Program helps implement the Clean Water Act by reviewing projects that may affect wetlands and then provides assistance in the design of projects to assess, and reduce, the project's impacts to fish and wildlife. The Habitat Conservation Program also ensures fish and wildlife impacts are considered and addressed when Federal power projects are licensed or re-licensed, so that fish and wildlife benefits to people are not lost.

Ecological Services' **Endangered Species Program** identifies species that are or could become endangered and protects them under the Endangered Species Act. This Program then works to recover these rare and declining species. The Endangered Species Program also works to prevent the need to add species to the list of endangered species by working with government and private partners to find ways to conserve species of concern.

Ecological Services' **Environmental Contaminants Program** works with partners to prevent contamination and maintain healthy ecosystems for fish and wildlife. Service biologists in this Program identify contamination that adversely affects the health of fish, wildlife and their ecosystems. As a federal trustee, the Service negotiates settlements from polluters to restore areas affected by contaminants so that they once again support fish and wildlife and associated benefits to local citizens.

The **Private Lands Program** within Ecological Services gives private landowners financial and technical assistance in restoring wetlands, prairies, woodlands, and other areas on their land. This program guides wetland and natural area restoration efforts on private lands to achieve multiple benefits, such as flood water storage, water quality improvement, or migratory bird conservation. The Private Lands Program also builds partnerships with other agencies, organizations, and corporations to pool resources needed to assist landowners in restoration projects.

Summary of Fiscal Year 1998 Accomplishments

Endangered Species

Fiscal Year 1998 was an active year for the Endangered Species Program. Region 3 Ecological Services is the lead agency for the two most visible Endangered Species Act accomplishments to date - recovery of the gray wolf and recovery of the bald eagle. Personnel from Region 3 reviewed the status of these species and began the process for future de-listing. Work accomplished included meeting or communicating with state, tribal, and non-governmental partners, interested parties and stakeholders about the issues involved. Those issues include the extent and potential of future threats to these species, future monitoring responsibilities, and future management responsibilities.

The office produced outreach materials for the gray wolf, distributed it nationwide, and posted information on the Region 3 web site. Work continues as the proposals to delist the wolf and bald eagle are being prepared along with outreach materials that will be used for the public hearings and other public events.

Region 3 personnel also worked on the proposal to delist the peregrine falcon and the proposals to list the Topeka shiner, the Canada lynx and the Illinois cave amphipod. A public hearing on the proposal to list the Canada lynx was held in Ashland, Wisconsin. A status survey was completed for the scaleshell mussel and the office prepared a recommendation to designate it as a candidate species. The Endangered Species Program completed an extensive status survey for the eastern massasauga rattlesnake and are now evaluating results to plan for its conservation. With good planning and action, it is hoped the decline of the eastern massasauga is abated, its health range-wide is improved and the need to list it is prevented.

Nearly \$368,000 in Section 6 funds were distributed to the states in Region 3 for priority actions, including status surveys of species that appear to be declining and recovery actions for listed species. Targeted species included two endangered birds (Kirtland's warbler and piping plover); one proposed fish (Topeka shiner); one endangered butterfly (Mitchell satyr butterfly); five endangered mussels (pink mucket, Curtis' pearlymussel, winged mapleleaf, clubshell mussel and fat pocketbook) and four threatened plants (eastern prairie fringed orchid, lakeside daisy, Fassett's locoweed and dwarf lake iris.)

Recovery Plans for the Mitchell's satyr butterfly and Leedy's roseroot were completed. Region 3 biologists are working on Recovery Plans for the Piping plover (Great Lakes population), Hine's emerald dragonfly, Karner blue butterfly, Mead's milkweed, and eastern prairie fringed orchid. Revisions of existing plans for the Higgins' eye pearlymussel and Indiana bat are ongoing.

Environmental Contaminants

The Endangered Species program, with help from other Region 3 Service programs, conducts many activities to conserve listed species. Each project may not recover a species on its own, but becomes significant when combined with other actions taken to protect a species. These projects ranged from surveys and planning to habitat restoration across the Region for the following species: gray wolf, Indiana bat, bald eagle, Kirtland's warbler, peregrine falcon, piping plover, pallid sturgeon, Topeka shiner, Hine's emerald dragonfly, Karner blue butterfly, Higgins' eye pearl mussel, eastern prairie fringed orchid, and western prairie fringed orchid.

Under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), popularly known as the Superfund, the U.S. Environmental Protection Agency has authority to restore contaminated sites with funds generated from polluters. However, they do not have authority to address the natural resources that are harmed or destroyed by contamination. Instead, the law allows federal, state, and tribal natural resources agencies, including the U.S. Fish and Wildlife Service, to act as trustees for natural resources. As trustees for natural resources, the Service and other natural resource agencies document the damages, recover damages from polluters, and then use the money for habitat restoration.



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Region 3 continues to implement the Natural Resource Damage Assessment program on behalf of the Department of the Interior. The Region evaluated several dozen contaminated sites which were being restored by the U.S. Environmental Protection Agency's Superfund program. Working in close coordination with other Department of Interior Bureaus and Native American tribes in all eight states in the region, the Region assisted EPA in designing restorations more beneficial to endangered species, migratory birds, and fish, and the habitats which support them. The Region also achieved legal settlements at several sites which will result in more complete restorations and more productive habitats. Three of the larger settlements are discussed below.

There is an ongoing effort to clean up the Grand Calumet River in northwest Indiana. Partners such as the Department of Interior, EPA and State of Indiana are working to negotiate clean-up efforts among the parties responsible for polluting the river. In August 1998, the Department of Justice announced a settlement with USX Corporation which will stop the release of contaminants into the environment, and remove contaminants from the eastern five miles of the Grand Calumet River. The project will completely remove the contaminated sediment from the riverbed and place it in a safe, sealed storage area. Dredging costs, estimated at \$30 million, will be paid by USX Corporation.

The Service, with a focus on benefitting injured natural resources, was instrumental in broadening the original settlement to ensure that the dredging project completely removed contaminants which affect fish, water quality, birds, and other resources. Because of the efforts of Region 3 and the State of Indiana, the settlement with USX will help restore natural resources lost over decades to pollution.

***The U.S. Fish and
Wildlife Service
Region 3 continues
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the Interior.***

General Motors will spend more than \$28 million to restore and protect Michigan's Saginaw River and Saginaw Bay as a result of a Natural Resource Damage Assessment and Restoration settlement agreement announced November 24, 1998. Under the settlement, General Motors will finance the removal of PCBs (polychlorinated biphenyl) from the Saginaw River and restore habitat. The settlement begins a cooperative process to restore and enhance important natural resources and to remedy the presence of contaminated sediments that are sources of PCBs in the Saginaw River and Saginaw Bay.

General Motors and the cities will pay \$28.22 million in direct costs for sediment removal and restoration projects. The settlement provides for acquisition, restoration, and protection of over 1,600 acres of habitat. The land will be owned and managed by the State of Michigan, the Service's Shiawassee National Wildlife Refuge, and the Saginaw Chippewa Tribe. Additional restoration and enhancement is planned for the acquired lands.

Ultimately, the settlement means a cleaner and a healthier environment for people who live in and around the region. It is also good news for birds, fish and all species that depend on the Saginaw River and its wetlands.

Fox River and Green Bay Natural Resource Damage Assessment is an ongoing project in Wisconsin. About 125 tons of PCBs have been deposited into the Fox River, with about 40 tons remaining in the sediments. Additionally, every year about 600 pounds of PCBs are scoured from the Fox River sediments and flow to Green Bay. The PCBs were dumped into the river mainly as a result of processes for removing ink and recycling carbonless copy paper.

The lands and water in and around Green Bay and northern Lake Michigan are home to millions of human residents and visitors, an abundance of fish and wildlife, and incredible scenic beauty. Unfortunately, for decades all of the waters of Green Bay and Lake Michigan have exceeded PCB water quality standards for the protection of aquatic life and wildlife. Consumption advisories for dozens of fish and some waterfowl have been in existence for many years, and major commercial fisheries have closed. Also, dozens of fish and wildlife populations have exhibited mortality, deformities, and numerous physiological abnormalities.

To begin addressing the contaminant problems in this area, trustees which included the Service, State of Wisconsin, Oneida Tribe and Menominee Tribe developed a plan to assess PCB contaminant injuries to natural resources. Region 3 published a notice of the Trustee's Assessment Plan in August, 1996. The Assessment will be finished in 1999, and a report finalized to coincide with U.S. EPA's decision on cleanup plans for the river.

Habitat Conservation

Ecological Services biologists conserve biological diversity by representing natural resources during planning for federal construction actions. The goal of the Service is to minimize the amount of natural resources destroyed or harmed, to ensure the least harmful option is selected, to ensure that impacts are thoroughly documented, and to ensure those impacts are mitigated. This work protects our remaining natural areas and provides a thorough and realistic analysis of project impacts and mitigation costs.

***Region 3
Ecological Services
biologists are
working to conserve
the biological
diversity of
hardwood forests...***

Region 3 Ecological Services biologists are working to conserve the biological diversity of hardwood forests in the Baraboo Range National Natural Landmark in southwestern Wisconsin. The Baraboo Range is the largest contiguous block of forested land in southern Wisconsin. The Range provides important habitat for migrating and nesting neotropical migrant birds and creates the beautiful southwestern Wisconsin countryside. The integrity of the Landmark is threatened by secondary development from the upgrade of U.S. Highway 12 from Sauk City to Middleton, Wis. The upgrade will enhance commuting from rural areas of Sauk County to metropolitan Dane County (Madison, Wis.) The Service, along with other government agencies and groups, has expressed its concerns over many years. Construction agencies have now agreed that secondary development is an impact of the highway expansion. Negotiations continue on the level of mitigation.

In Missouri, the U.S. Army Corps of Engineers is proposing the St. Johns Bayou - New Madrid Floodway Project, which will close the last 1,500 foot gap of a frontline levee. Closing the levee will block the last Mississippi River backwater in the state. This flood control project will also drain 36,000 acres of marsh and bottomland hardwoods for agriculture. Waterfowl, wading birds, shorebirds, and bald eagles migrate through and nest in these rare backwater wetlands and larval stages of river fishes feed and mature in them. These wetlands also mitigate the affect of upstream floods and improve water quality by filtering runoff. Service biologists in Missouri are working with other federal agencies and conservation groups to negotiate with the Corps so project impacts are accurately identified, minimized, and sufficiently mitigated. This project was authorized in 1986 but never constructed because local sponsors could not afford the local cost share. However, through the Water Resources Development Act of 1996, the U.S. Department of Agriculture is now funding a large portion of the local cost share.

Goals for Fiscal Year 1999

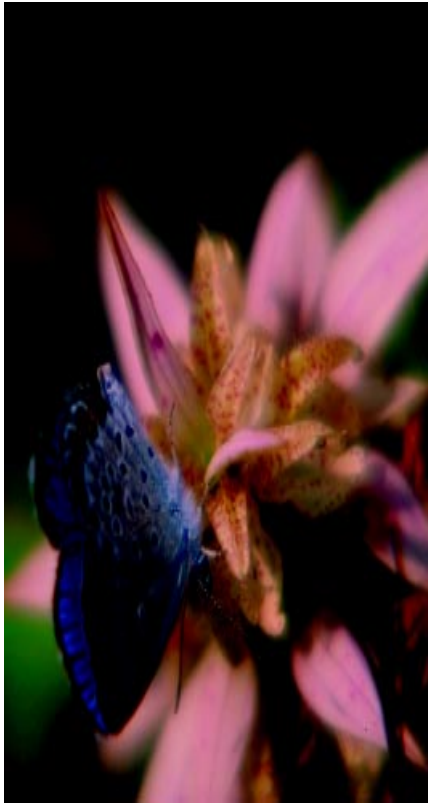
Endangered Species Pre-Listing

- The Region will provide management and oversight for projects (listed below) that will conserve or lead to the conservation of the Dakota skipper butterfly, a species of concern, and its habitat. The Service has already been petitioned to list the species and committed to apply conservation measures to prevent the need to list in the future. Projects include:
 - Minnesota Department of Natural Resources - Abundance, distribution and habitat characterization on Big Stone National Wildlife Refuge, leading to the preparation and implementation of a Dakota skipper management plan for the refuge.
 - Minot State University - Abundance, distribution, and site delineation in North Dakota.
 - South Dakota Game, Fish and Parks - private, tribal, and organization landowner contact in South Dakota.
 - North Dakota Department of Parks and Recreation - Physical characterization of Dakota skipper habitat in North Dakota.
 - Work with the Tallgrass Prairie Habitat Protection Area project to encourage protection of Dakota skipper habitat as part of the project.
 - Complete a field office status survey and status determination package for the common tern to determine if the common tern should be elevated to candidate status.
 - Negotiate Conservation Agreements for the eastern massasauga rattlesnake.
 - Continue to compile information on ongoing Henslow's sparrow monitoring and research to facilitate Service efforts to conserve this species. Continue to respond to requests for information on this high profile species.
 - Complete the ongoing status surveys of the following species: loggerhead shrike, eastern sand darter, spotted darter, longhead darter, hellbender, and glade spurge.

Endangered Species Listing

- Region 3 will coordinate Service efforts within the region for the listing of the Topeka shiner and Canada lynx.
- List the Lake Erie water snake as a federally-threatened species. Continue our joint outreach effort with the Ohio Department of Wildlife including informing landowners and tourists regarding the legal protection afforded the snake as a threatened species

Endangered Species Recovery



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- Complete field office coordination and preparation of the final recovery plan for the Higgins' eye pearlymussel.
- Provide project management and oversight for the following grants which support the recovery of currently listed species:
 - Minnesota Department of Natural Resources for Karner blue butterfly monitoring, habitat management, and management evaluation at Whitewater Wildlife Management Area; piping plover monitoring, habitat management, nest site protection, predator control, and predator control evaluation at Lake of the Woods; western prairie fringed orchid monitoring and management treatment evaluation; prairie bush clover survey and reproductive monitoring; and Minnesota dwarf trout lily site damage assessment following flooding in spring of 1998.
 - U.S. Geological Survey, Biological Resources Division, Upper Mississippi Science Center for genetic populations discrimination and delineation of Higgins' eye pearlymussel.
 - University of Minnesota for glochidial host fish determination for winged mapleleaf mussel as recommended in the recovery plan.
 - U.S. Army Corps of Engineers, Waterways Experiment Station for the study of zebra mussels and their effects on Higgins' eye pearlymussels at Prairie du Chien, Wis.
 - Cooperate with Minnesota Department of Agriculture and St. Olaf College to determine hydrological connections between uplands and the cliff seeps where Leedy's roseroot, a federally-endangered species, is found. A need identified by the recovery plan is to determine if contaminants may be reaching the plants through underground hydrological connections and, thus, impacting the plants. If results of hydrological study warrant, prepare an Off-Refuges Contaminant Investigation Proposal to further study the relationship of contaminants and Leedy's roseroot.
- Participate as Chair of the St. Croix River Zebra Mussel Task Force to prevent the spread of zebra mussels into winged mapleleaf and Higgins' eye pearlymussel habitat.
- Complete a Indiana bat mist net and radiotelemetry survey on the Hoosier National Forest.
- Continue to aggressively implement new recovery plans focusing on Great Lakes piping plover, Michigan monkeyflower and Houghton's goldenrod wherever possible and implement plans for Mitchell's satyr butterfly, Pitcher's thistle, and dwarf lake iris.
- Continue the Service's joint effort with the Ohio Department of Wildlife in a three - year cooperative agreement to preserve and enhance habitat to ensure the survival of the only known breeding population of the federally - endangered purple cat's paw pearlymussel in Killbuck Creek.

Endangered Species Recovery (continued)

- Continue our involvement in the partnership effort to reintroduce the federally - endangered Karner blue butterfly into the Oak Openings in Lucas County.
- Continue with the second year of the grant agreement with Ohio Biological Survey to study the first federally endangered Indiana Bat maternity roost discovered in Ohio.
- Complete revision of the Running Buffalo Clover Recovery Plan.
- Get a valid real estate appraisal for leasing, purchasing development rights, etc. on a limestone mine which provides a hibernacula for 10,000 federally - endangered Indiana bats.
- Continue to support the interagency reintroduction effort in Ohio of the American burying beetle.
- Complete interagency draft of Karner blue butterfly recovery plan.

Permits and Habitat Conservation Plans

- Complete a Habitat Conservation Plan (HCP) for the Indiana bat at the Six-Point interchange at Interstate 70.
- Facilitate implementation of a Safe Harbor agreement with Northern Indiana Public Service Company for Karner Blue Butterfly in power line rights of way in northern Indiana.
- Develop a Habitat Conservation Plan for the interior least tern at the Cinergy's Gibson power generating plant.
- Assist Wisconsin Department of Natural Resources to finalize Statewide HCP/EIS for Karner blue butterfly. Process permit application.

Endangered Species De-Listing

- Coordinate Service efforts nationwide and within Region 3 for the de-listing of the gray wolf.
- Coordinate Service efforts nationwide and within Region 3 for the de-listing of the bald eagle.
- Coordinate Service efforts within Region 3 for the de-listing of the peregrine falcon.

Endangered Species Consultations

- Participate in formal Section 7 consultations as the need arises, including ongoing Upper Mississippi River Navigation Study and St. Croix River Bridge.
- Compete a programmatic Indiana bat Section 7 consultation for timber harvest on the Hoosier National forest.

Endangered Species Consultations (continued)

- Complete ongoing Section 7 consultations with Indiana's Camp Atterbury Reserve Forces Training Area regarding impacts of proposed projects on Indiana bats. Consultations include a formal consultation for a proposed multi-purpose training range at Camp Atterbury.
- Coordinate with the Army to insure that impacts to gray bats are considered during the excessing of the Indiana Army Ammunition Plant at Charlestown, Ind.
- Coordinate with the Indiana Department of Natural Resources, Division of State Parks, to insure that gray bat habitat is protected during expansion and management of Charlestown State Park.

Natural Resource Damage Assessments (NRDA)

- Continue to pursue natural resource damage assessment opportunities at sites where natural resources have been adversely impacted by releases of hazardous substances and/or discharges of oil.
- Develop and implement restoration plans on natural resource damage assessments where settlements have been finalized.
- Continue NRDA efforts on Fields Brook and Ashtabula River and Harbor; utilize settlement funds from Shield Alloy to initiate NRDA work elsewhere; continue NRDA activity on the Nease Chemical site, and on the Ottawa River.
- Continue our involvement in implementation of the Fish Creek NRDA Recovery Plan.
- Begin to aggressively implement the Saginaw Bay NRDA Settlement.
- Develop a draft pre-assessment screen for the Kalamazoo River.
- Continue our involvement in implementation of the Fish Creek NRDA Recovery Plan.

Environmental Contaminants

- Continue evaluation of contaminant impacts to the water quality of Tippecanoe River, including threats to federally - endangered mussels.
- Identify contaminant problems by conducting special studies and investigations, (i.e., flex-funding).

Technical Assistance to National Wildlife Refuges

- Assist refuges in avoiding, minimizing, and mitigating impacts from federal and other projects, as requested.
- Coordinate Region 3's pre-acquisition contaminant survey activities.
- Coordinate with the Region 3 Division of Engineering regarding lead-based paint, asbestos, Level II and III surveys, and other potential compliance issues.
- Prepare Level II and III Survey guidance for field stations and realty specialists.
- Assist the LaCrosse District of the Upper Mississippi River National Wildlife and Fish Refuge with water quality issues in selected watersheds.
- Continue the On-Refuge Contaminants Investigation at Agassiz National Wildlife Refuge to evaluate potential impacts of metals contamination to migratory birds.
- Assist the Fergus Falls Wetland Management District with the completion of the Contaminants Assessment Process for selected Waterfowl Production Areas.
- Participate in the development of Minnesota Valley National Wildlife Refuge's Comprehensive Conservation Plan.

Spill Response

- Continue active participation in the U.S. Coast Guard's effort to prepare Spill Response Contingency Plans.

Habitat Conservation

- Actively participate in the review of federally licensed, permitted, or funded projects that may adversely impact endangered species, lands of the National Wildlife Refuge System, or habitats/species that are otherwise determined to be of importance.
- Ohio River Mainstem Study - Prepare Fish and Wildlife Coordination Act reports and participate in environmental restoration projects.
- Kankakee River National Wildlife Refuge - Complete National Environmental Policy Act (NEPA) process and establish the refuge by January 1, 1999. Continue to build partnerships and obtain Land and Water Conservation Funds for Fiscal Year 2000 land acquisition. Contribute to Comprehensive Conservation Planning for the Refuge.
- Continue the planning process for the Darby Prairie National Wildlife Refuge proposal.

Federal Energy Regulatory Commission Licensing and Re-licensing

- Currently, there are seven licenses pending which will require additional work and 30 will be licensed or re-licensed in the near future. Significant effort will be exerted at Buchanan, Bond Falls, Au Train, Cataract, and Thunderbay Projects, as well as in implementing the Ludington Pumped Storage Plant Settlement Agreement and Consumers Energy Hydro Agreement.

Partners for Fish and Wildlife

- Complete 150 habitat restoration projects with private landowners and other cooperators, which includes wetland restoration, bottomland hardwood reforestation, and upland prairie restoration. Coordinate and complete project repairs where necessary. Prepare Challenge Cost-Share and other grant applications to provide additional funding for restoration work and equipment purchase. Coordinate restoration activities, financial accounting, reporting requirements, and other administrative duties for successful grants. Continue field days and promotional efforts where opportunities arise. Continue to work with schools to develop outdoor labs.
- Partner with U.S. Department of Agriculture/Natural Resources Conservation Service to jointly fund wetland restorations in the Maumee River watershed as part of the Toledo Long - Term Management Strategy, an interagency effort to reduce the amount of river material dredged annually in the Harbor by decreasing soil erosion throughout the watershed.

Farm Bill Activities

- Swampbuster— Assist USDA agencies with evaluation and modification of wetland functional assessment procedures for Swampbuster mitigation and minimal effects requests, and assist with quality control of wetland determinations and Swampbuster appeals and violations.
- Farm Service Agency Inventory Farms— Review new inventory farms for Important Resources under the most recent MOA and coordinate maintenance and other needed work on existing FmHA easement properties.

***Complete 150 habitat restoration projects with private landowners and other cooperators, which includes wetland restoration, bottomland hardwood reforestation, and upland prairie restoration.
-FY99 Partners for Fish and Wildlife Goal***

- Wetlands Reserve Program: Conduct site evaluations and rankings, assist with restoration plans on accepted sites, and coordinate with NRCS on special projects associated with North American Waterfowl Management Plan projects and other efforts. Identify opportunities to cooperate with NRCS to implement the 10-year Wetlands Reserve Program in conjunction with Partners for Fish and Wildlife.
- State Technical Committee: Provide Service representation on the Committee to evaluate Farm Bill programs and develop recommendations on integrating fish and wildlife considerations into new and existing programs.
- Coordinate with NRCS on the development and implementation of the Conservation Reserve Program, Wildlife Habitat Incentives Program, and Environmental Quality Incentives Program, with specific emphasis on the application of ranking criteria and technical assistance with wetland restoration and other habitat development.

North American Waterfowl Management Plan Projects

- Continue to provide Service representation on Steering Committees for NAWMP projects within Indiana. Coordinate partnership activities, foster new partnerships, and review land parcels for acquisition and restoration. Assist in the development of new funding proposals, and continue service as secretary of the Indiana Grand Kankakee Marsh Restoration Project Steering Committee.

Ecosystem Team Support

Upper Mississippi River Ecosystem Team

- Participate on the Water Level Management Task Force and other similar work groups on the Upper Mississippi River that deal with water level management issues. Managing water levels on the UMR will improve habitats in backwater areas both on and off national wildlife refuge lands.
- Participate in the Upper Mississippi River's Resources Forum, On Site Inspection Team, and national dredging team. Such participation will ensure the consideration of fish and wildlife values in the operation and maintenance of the Upper Mississippi River navigation system.
- Participating in the Habitat Needs Assessment for the Upper Mississippi River to identify those things that need to be done on the Upper Mississippi River to improve habitat quantity and quality.

Great Lakes Ecosystem Team

- Twin Cities Field Office will work with the Green Bay Field Office and the Ashland Fishery Resource Office to determine the Service's role in the St. Louis River Estuary/Duluth-Superior Harbor.
- Further the development and management of the Environmental Monitoring and Assessment project entitled, "Great Lakes Nearshore Coastal Wetlands."
- Utilize field office Partners for Fish and Wildlife monies, Clean Water Action Plan opportunities, and Natural Resources Damage Assessment restoration funds to benefit and supplement ongoing efforts in priority watersheds/ecosystems.
- Continue to use Ecological Services tools in a place-based manner on Great Lakes Water Quality Guidance, Lake Superior Binational Program, Lake Michigan LAMP and Mass Balance, Habitat Advisory Board, Detroit River, and international agreements affecting the Great Lakes.

Ohio River Ecosystem Team

- Conduct a baseline evaluation of the Patoka River National Wildlife Refuge for mussels and crayfish assemblages and development of proposals for Oxbow lake assessment.
- Continue efforts on the mainstem Ohio River for the development and testing of indicators of Great River assemblages.

Tallgrass Prairie Ecosystem Team

- Contribute to the Tallgrass Prairie HPA as opportunities arise (e.g., railroad project across southern Minnesota).
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Outreach

- Continue the following programs: Piping Plover outreach; open houses in Lake Superior Binational Program as needed, Public meetings with Lake Michigan Forum, Kirtland's Warbler Festival and seasonal tours, seasonal Piping Plover Patrol and others.
- Conduct Congressional tours featuring accomplishments and ongoing issues.
- Conduct public hearings and public meetings for the gray wolf and bald eagle proposed de-listings. Provide information to all field offices, Congress, and media on these issues.
- Maintain and further develop endangered species home page on Region 3 web site.
- Conduct media events and interviews, visits with school and youth groups, talks to community groups and non-governmental organizations as needed.



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Ecological Services Fiscal Year 1998 Accomplishment Reports

Great Lakes Basin Ecosystem

■ **Increased Flow Minimum for Neshonoc Hydroelectric Project Improves Habitat**

Green Bay Field Office

The Service and Wisconsin Department of Natural Resources completed an in - stream flow study at the Neshonoc Hydroelectric project, located near West Salem, Wisconsin.

Subsequently, the Federal Energy Regulatory Commission accepted the study's recommendation to increase the minimum flow from 120 cfs (cubic feet per second) to 170 cfs at the hydro power project. This increase in daily discharge will substantially improve free-flowing riverine habitat for fisheries and riparian wildlife as well as improve navigational conditions for recreational boating in the LaCrosse River. **10/97**

■ **Models Developed For Lake Erie Lake - Wide Area Management Plan (LAMP)**

Reynoldsburg Field Office

Members of the Reynoldsburg, Ohio, Field Office attended a Ecosystem Objectives Subcommittee meeting in Windsor, Ontario October 1-3, 1997. Most of the meeting was spent working on input to the computer model that was selected. The Lake Erie Lake-wide Area Management Plan will help guide governmental agencies in selecting a desired future condition of Lake Erie and making decisions to reach the desired goal in the future. **10/97**

■ **Service Participates in Northeastern Wisconsin Education Association Convention**

Green Bay Field Office

Green Bay Field Office staff participated in the Northeastern Wisconsin Education Association Convention in Green Bay, Wis., March 13, 1998. Hundreds of teachers, most from northeast Wisconsin attended the conference. The Service's display booth featured educational materials to teach students about wetland and wildlife values and endangered species. Posters on endangered species and information on the educational resources available for loan to teachers were given out. Several teachers expressed interest in using the Service's resource materials in their classrooms to help teach their students about endangered species, wetlands, and ecology. A follow-up mailing was made to 35 teachers who requested a copy of the Green Bay Field Office's

educational resource inventory; an additional 70 copies of the inventory were distributed at the convention. **3/98**

■ **Wisconsin Prairie Restoration Creates New Karner Blue Butterfly Site**

Green Bay Field Office

While conducting a survey of a recently restored prairie/barrens habitat complex, a Service biologist discovered a population of endangered Karner blue butterflies occupying the site. The habitat complex, located in central Wisconsin, was restored as part of the Service's Partners for Fish and Wildlife Program. Working with the property owner, biologists from the Green Bay Field Office developed and implemented a habitat restoration plan with the goal of providing suitable habitat for the Karner blue butterfly. At the time the restoration was accomplished, the nearest known population of Karner blues was over a mile away. With a number of potential barriers between the two areas, it was unknown how long it would take for Karners to occupy the site, or if they would at all. The colonization of this site by Karner blues, even though only in its third growing season, is an encouraging sign for the potential success of future private land restoration projects. **6/98**

■ **Service Staff, Volunteers, Help Threatened Orchids in Chicago Region**

Chicago Field Office

The Chicago Field Office and volunteers from The Nature Conservancy's Volunteer Stewardship Network continued a sixth summer of pollinating and monitoring the federally threatened *Platanthera Leucophaea*, the eastern prairie fringed orchid. The human pollination efforts are part of a recovery strategy that includes habitat management and protection of the wet prairies and sedge meadows where this species was once widespread. This year volunteers began collecting detailed demographic data on the orchids for a life history analysis being conducted by the Morton Arboretum. **7/98**

■ **Chicago Field Office Samples Orchids For Genetic Diversity Analysis**

Chicago Field Office

The Chicago Field Office staff collected leaf tissue from the federally threatened *Platanthera*

leucophaea, the Eastern prairie fringed orchid, to provide samples for a study of the genetic variation present within and between orchid populations in the Chicago region. The study, funded by a grant from the Service to the Chicago Botanic Garden, will provide scientific data to guide recovery efforts, including hand-pollination and seed dispersal. **8/98**

■ **Chicago Field Office Hosts Orchid Workshop For Wisconsin Volunteers**

Chicago Field Office

Staff from the Chicago Illinois Field Office gave a talk on the ecology and life history of the eastern prairie fringed orchid to volunteer monitors in Madison, Wisconsin. Volunteers in the Chicago Region are the mainstay of the recovery effort, hand-pollinating, monitoring, collecting and dispersing seeds, and clearing brush, controlling exotic vegetation and conducting prescribed burns to maintain the habitat needed by the prairie orchid. The Wisconsin Department of Agriculture endangered species program is working to establish a similar volunteer network for Wisconsin populations of the prairie orchid. **7/98**

■ **Chicago Field Office Completes Wetland Mitigation Study in Northeast Illinois**

Chicago Field Office

In June, 1998, the Chicago Field Office issued a final report of the findings of a three-year study of wetland mitigation success and permit compliance in the Chicago metropolitan area. The study, co-sponsored by U.S. Environmental Protection Agency, investigated over 60 permits issued by the U.S. Army Corps of Engineers between 1990 and 1994 to determine rate of compliance with permit conditions and overall success rate of mitigation required under these permits. The study found that more than 60 percent of the wetland mitigation basins investigated were either partial or complete failures, and that permit conditions were routinely ignored by permit holders. The findings are consistent with those of similar studies done elsewhere around the country, and make a strong case for alternative mitigation approaches such as mitigation banking, where better site selection, design, implementation, and oversight can result in increased likelihood of success. The study also offered recommendations for improving on-site mitigation success rates, and provided permit compliance documentation to the Corps for follow-up action. **6/98**

■ **U.S. Fish and Wildlife Service Negotiates Settlement With USX Corporation**

Bloomington Field Office

The Service's Bloomington Field Office, together with state trustees, negotiated a Natural Resource Damage Assessment settlement as part of the clean-up settlement with USX for the eastern five miles of the Grand Calumet River near Gary, Indiana. As the EPA negotiated with USX for cleanup of the river, the Bloomington Field Office worked to expand the proposed dredging project to include a more complete dredging of contaminated sediment from the river bed. Also negotiated were restoration of riparian and in-stream habitats, acquisition of land for Indiana Dunes National Lakeshore and Indiana Department of Natural Resources, and \$1 million for post-dredging monitoring. Bloomington Field Office's participation in the NRDA settlement added about \$21 million to the value of the dredging project. The Bloomington Field Office acts as NRDA co-trustee with the State of Indiana on investigation and clean-up of the Grand Calumet River. The USX settlement and NRDA settlement were announced at a joint press conference in Gary, Ind., August 6, 1998, by the Environmental Protection Agency, Departments of Justice and Interior and the State of Indiana. **8/98**

■ **Service Contaminant Expertise Brought to State Regulators**

East Lansing Field Office

Dr. Lisa Williams of the Service's East Lansing Field Office taught two sessions of "Behavior of PCBs, PCDDs, and PCDDs with Special Emphasis on the Great Lakes" to staff members of Surface Water Quality Division, Michigan Department of Environmental Quality during their in-service training August 25, 1998. Approximately 80 Division staff members were educated on the chemistry, fates and effects of PCBs and dioxin. The staff members are responsible for the quality of the surface waters of Michigan, including all Michigan tributaries to the Great Lakes. As a result of the training, Surface Water Quality Division staff from around the state will understand the fate of PCBs and related compounds in wastewater streams and treatment plants and the significance of even undetectable releases of these compounds to fish, wildlife and humans. This will enable them do better job of reviewing National Pollutant Discharge Elimination System permits and industrial pretreatment plans. **8/98**

■ **90-Day Finding for Henslow's Sparrow
Petition Finalized**

Bloomington Field Station

The Service completed a range-wide status assessment of the Henslow's sparrow in 1996. Based on that assessment, the Service determined that elevating the species to candidate status for listing as endangered or threatened was not warranted. On April 6, 1998, the Service received a petition to list the Henslow's as threatened in the contiguous United States and designate critical habitat. The Service reviewed the petition, literature cited in the petition, and information from states, tribes, and biologists conducting Henslow's sparrow research. The Service found the petition did not present substantial information to support listing as threatened. The review, in fact, indicated that the status of the species may have improved slightly since 1996. The Service remains concerned about the species' decline in population and habitat. **8/98**

■ **Navigation Agreement Protects St. Marys
River, Michigan's Coastal Wetlands**

East Lansing Field Office

The Service recently participated in a multi-agency winter navigation agreement that will protect the St. Marys River and more than 13,300 acres of Michigan's coastal wetlands. The Memorandum of Agreement sets opening and closing dates for the Soo Locks at Sault Ste. Marie, Mich., vessel speed limits and other monitoring responsibilities relating to commercial shipping traffic on the St. Marys river. As part of the 10-year agreement, the Service's East Lansing Field Office negotiated provisions to protect more than 75 miles of riverine habitat and wetlands from the effects of early navigation season. The parties of the agreement include the U.S. Army Corps of Engineers, the U.S. Coast Guard and the Michigan Departments of Natural Resources and Environmental Quality. **9/98**

■ **Chicago Field Office Surveys Contaminants
at Military Base in Latvia**

Chicago Field Office

Edward Karecki, a contaminants biologist at the Service's Chicago Field Office, participated in a joint U.S.-Swedish mission to assess environmental conditions at the Adazi Military Training Base in Latvia. The U.S. team was represented by the Service and the EPA. During Soviet occupation the base was maintained by the Soviet Army. However, since Latvia's independence, the base has been under control of the Latvian military. The Latvian government

requested assistance in identifying and addressing past contamination, as well as in implementing proper environmental management practices through a base-wide management plan. The base is located on a sandy plain with large areas of pine and birch forests, grasslands, marshes, bogs and lakes. Potential environmental contaminant threats identified include large groups of underground storage tanks, vehicle maintenance facilities, a malfunctioning wastewater treatment system, potential drum disposal areas, and munitions disposal/testing areas. There was an unusual absence of mammals at the site, potentially due to unregulated harvest or poaching. Migratory birds were observed in low numbers. The U.S. team also finalized contracts with two Latvian consulting companies. The consultants will perform environmental investigations at the base and identify rare and endangered species habitats. The information obtained will be used in drafting and implementing the base-wide management plan. **9/98**

■ **Endangered Hines Emerald Dragonfly
Population Discovered in Michigan**

Chicago Field Office

The Service's Chicago Field Office funded a second year of surveys to locate populations of the federally endangered *Somatochlora Hineana*, the Hine's emerald dragonfly. A new population was discovered this summer in the Hiawatha National Forest in Mackinac County, Michigan. **9/98**

■ **Team Drafts Recovery Plan For Endangered
Hines Emerald Dragonfly**

Chicago Field Office

The Chicago Field Office, in cooperation with the Hine's Emerald Dragonfly Recovery Team and the University of Illinois, recently completed the first technical draft of the recovery plan for the federally endangered species. The recovery team met for three days in September to review and edit the draft plan. The team reached consensus on all major issues needed to complete the draft recovery plan, which should be ready for publication in the Federal Register in Fiscal Year 1999. **9/98**

■ **Chicago Field Office Hosts Resource
Workshops for Chicago Educators**

Chicago Field Office

An estimated 50 percent of the remaining wetland acreage of Illinois occurs in the six-county Chicago metropolitan area. Many educators are interested in teaching their students about

wetlands, and are interested in using local wetlands for outdoor studies and volunteer opportunities. However, one of the major barriers for educators is access to quality information and training to enable them to teach about wetlands. The environmental education specialist of the Chicago Field Office designed and conducted teacher workshops in partnership with a variety of local natural resource agencies and organizations. These workshops were attended by Chicago area educators who received training in outdoor field studies and educational materials focused on wetlands and water quality/quantity issues. Most participating educators use the training and materials to develop units of study regarding wetlands, watersheds, water quality, etc. for their classes. Also, many educators have used this training to develop outdoor studies at a local wetland, and involve the students in stewardship activities. **9/98**

■ **Service Supports Northeast Illinois Wetland Bird Surveys**

Chicago Field Office

The Chicago Field Office and Region 3's Migratory Bird Division supported important wetland bird survey work in the Chicago metropolitan area. The Chicago region has a significant proportion of the remaining wetlands in the State of Illinois, particularly deep marshes which provide important habitat for wetland birds. These wetlands are also under severe development pressure because of their location in the metropolitan area. The project, undertaken by the Max McGraw Wildlife Foundation, will provide estimates of wetland-dependent bird distribution and abundance; assess regional population health; evaluate the effects of landscape and marsh habitat characteristics on abundance and nesting productivity; and develop better criteria for identifying and prioritizing critical wetland bird habitats. The information will assist the Service in reviewing development proposals and will be of particular value in developing wetland portions of the Chicago Wilderness Biodiversity Recovery Plan for the region. **9/98**

■ **Chicago Field Office Provides Leadership to Chicago Wilderness**

Chicago Field Office

The Chicago Field Office continued to provide essential support to Chicago Wilderness, a regional collaboration of nearly 70 conservation agencies, organizations and institutions in the Chicago Metropolitan area who are working

together to support biodiversity conservation in the metropolitan area. Chicago Field Office staff serve the organization as Vice Chair and on several working committees, and the Office has provided funding to support over 30 projects proposed by member organizations in 1998. Projects supported in 1998 include the evaluation of oak woodland restoration on savanna bird communities, support for volunteer bird monitors, monitoring of changes in forest biodiversity since 1978, and watershed restoration planning and implementation in a developing suburban watershed. The Office supported additional projects in environmental education and outreach, policy and planning, land management, and restoration science. **9/98**

■ **Ohio/Michigan Prairie Fringed Orchid Pollinator Study**

Reynoldsburg Field Office

Field work has identified pollinator species for the eastern prairie fringed orchid in both Ohio and Michigan. The pollinator study also describes the status of the orchid pollinators, as well as corresponding fruit set at the sites selected for study. Funds for the study are provided by the Service's Reynoldsburg Field Office via cooperative agreement. In-kind efforts are provided by the Michigan Natural Features Inventory and the Ohio Division of Natural Areas and Preserves.

8/98

■ **Northwest Ohio Mitigation Bank to Restore Diverse Habitat Types**

Reynoldsburg Field Office

The Ohio Wetlands Foundation is developing plans for a wetland mitigation bank on a 160-acre site in Sandusky County, Ohio. Muddy Creek Bay (Sandusky Bay) on Lake Erie is located one mile to the north. The site contains portions of a channelized stream with cutoff oxbows. The bank will serve Lucas, Ottawa, Sandusky and Wood counties in Ohio. Habitat types to be restored or enhanced include emergent wetlands with open water, wet prairie and riparian hardwoods. After completion, the site will be donated to the Ohio Division of Wildlife. **9/98**

■ **Service Comments on Proposed Middle Bass Island, Marina and Condo Development**

Reynoldsburg Field Office

RealAmerica, Inc., proposed to construct a 132-slip marina and townhouse complex on the east side of Middle Bass Island in Lake Erie, Ottawa County, Ohio. The permit application, Buffalo CE #97-479-0004(1), dated November 26, 1997, is opposed by many local residents. Reynoldsburg Field Office recommended denial with a threat to elevate, per our Memorandum of Agreement with the U.S. Army Corps of Engineers. Denial is based on unacceptable impacts on aquatic resources and the loss of public use of eight acres of Lake Erie waters. The applicant is currently conducting aquatic resource studies in the project area. **9/98**

■ **Service Participates in Federal Energy Regulatory Committee Public Meeting**

Green Bay Field Office

The Green Bay Field Office participated in the Federal Energy Regulatory Commission's (FERC) public outreach meeting held in Wausau, Wisconsin, on September 17, 1998. At the meeting, FERC staff identified hydroelectric projects which will be up for re-licensing in Wisconsin between years 2000 and 2010. The Commission also explained its re-licensing procedures, both traditional and collaborative, that are available for use by applicants. Jim Fossum of the Green Bay Field Office participated on a panel along with representatives from the Wisconsin Electric Power Company, Wisconsin Department of Natural Resources, and River Alliance of Wisconsin. The group explained the collaborative approach to re-licensing as used in the Wilderness Shores Settlement Agreement signed in 1997. The panel explained that a consensus/collaborative approach to re-licensing was used and the partners negotiated a settlement for eight hydro projects located in the Menominee River Basin. The Settlement balanced environmental and power objectives and achieved many positive gains for the environment over the 40-year term of the agreement. The audience expressed great interest in this re-licensing approach during the meeting. **9/98**

■ **Service Helps Sponsor Ohio Freshwater Mussel Symposium**

Reynoldsburg Field Office

This Freshwater Mussel Symposium was coordinated by the Columbus, Ohio, Zoo and co-sponsored by the Service and several governmental agencies. More than 200 people

attended the symposium, including mussel experts from the U.S. and elsewhere. The latest research findings were presented, advances in mussel propagation were discussed, and several sessions on specific topics were held. **3/98**

■ **Toledo Harbor Management Strategy Discussed at Interagency Meeting**

Reynoldsburg Field Office

The goal of this interagency effort is to decrease the amount of sediment dredged each year from the Toledo Harbor. By reducing sediment reaching the harbor, costs for dredging disposing of dredged material would also decrease. This annual meeting summarizing what was accomplished during the past year and discussed the schedule for future work. This is the first such project in the U.S. where the Corps of Engineers has transferred funds — \$600,000 — to the Natural Resources Conservation Service for conservation tillage. **6/98**

■ **Genetics of Ohio's Native Brook Trout Studied**

Reynoldsburg Field Office

A June, 1998, study demonstrates that Ohio's last native brook trout population is, in fact, native. The study also describes the unique genetic makeup of the population. The study was performed by the Great Lakes Science Center and funded by both the Ohio Division of Wildlife and the Service. The Service provided pre-listing funds for the study in anticipation of receiving an eventual listing petition describing genetic listing issues. **6/98**

■ **Service Funds Monitoring and Predator Control for Piping Plovers in Minnesota**

Twin Cities Field Office

The only piping plovers in Minnesota nest at Pine and Curry Islands Scientific and Natural Area. Preservation of this federally-listed species is critical and their status is tenuous. Through this project, the Service has funded the Minnesota Department of Natural Resources for two years of monitoring and predator control for these birds. **6/98**

■ **Mitchell's Satyr Butterfly Recovery Plan Completed**

East Lansing Field Office

About 100 copies of the approved Mitchell's Satyr Butterfly Recovery Plan were mailed out July 8, 1998, from the East Lansing Field Office. Recipients included members of the scientific community, state and federal agencies, private conservation organizations, interested individuals,

affected land owners and selected members of Congress. The recovery plan was written with the help of experts within The Nature Conservancy - Indiana Chapter, and members of the recovery team, representing a wide range of expertise in many aspects of the species. The Recovery Plan will help organize recovery efforts of this rare butterfly. **7/98**

■ **Michigan Census Shows Kirtland's Warbler Population at Record High**

East Lansing Field Office

A recent census of Kirtland's Warbler populations in Michigan revealed a record high number of breeding pairs. The census, conducted in June by biologists, researchers, and volunteers revealed 805 singing males. The total breeding population -- males and females -- is twice the number of singing males, or approximately 1,600 birds. This is the highest recorded population since the first census was conducted in 1951. The 1998 census result is a remarkable increase from low numbers in 1987 when only 167 singing males were counted. One singing male was found in Wisconsin. This year's census results indicate that recovery efforts, including habitat management and cowbird control, have been successful in helping recover the federally - endangered Kirtland's Warbler. Other partners in this project included the Michigan Department of Natural Resources, The U.S. Forest Service, U.S. Geological Survey's Biological Resources Division, Michigan Department of Military Affairs, Michigan Audubon Society and volunteer citizens. **7/98**

■ **Piping Plover Success at Michigan's Cross Village Park**

East Lansing Field Office

The Service and the town board of Cross Village Township, Mich., joined forces to produce a successful piping plover fledgling at a township park. The piping plover is the most endangered bird in the Great Lakes. Last year, only 23 breeding pairs were counted. After discovering a plover nest in a public park, members of East Lansing Field Station contacted the township board to ask for its help. Board members allowed the Service to erect a series of predator exclosures and warning signs around the nesting site. Four eggs eventually hatched. Three chicks, however, were lost to predators or storms. The East Lansing Field Office presented a framed piping plover print to the Township Board in appreciation of the township's efforts to protect the piping plover. The Service and the Township

pledged to continue to work together to protect piping plover while providing recreation areas to Cross Village. **7/98**

■ **Service Gets Commitments For Great Lakes Piping Plover Surveys and Protection**

East Lansing Field Station

The Great Lakes Piping Plover Coordination Group met in April and planned expansion of surveys and protected areas for 1998. Members of the Ohio Department of Natural Resources attended for the first time and committed to protecting piping plover migration and potential nesting habitat in two Ohio nature preserves. Michigan committed to additional surveys, to protect 100 percent of nests in State Parks, and to increase staff dedicated to piping plover protection and education about plovers. Sleeping Bear National Lakeshore increased staff and committed to protect 100 percent of nests within the lakeshore. University of Minnesota researchers will continue banding, surveys and protection of several plover nesting areas. The Service is developing a cooperative agreement with University of Minnesota researchers to develop a new Great Lakes Piping Plover Recovery Plan this winter. The Great Lakes Coordination Group agreed to provide technical and peer review of the new plan. **7/98**

■ **Karner Blue Butterflies Reintroduced to Ohio**

Reynoldsburg Field Office

Karner blue butterflies are flying again in Ohio for the first time since 1988! During the first year of a five - year reintroduction program, Karner blue butterflies were reintroduced to the oak openings region of northwest Ohio. Adult Karner blues were successfully captured in southern Michigan and transported to Ohio for captive rearing. More than 600 eggs and 400 larvae were produced in captivity. From these, more than 200 Karner blues were released into the wild oak openings region in Ohio. **8/98**

■ **Service Monitors Karner Blue Population at Kiddy Todd Preserve**

Reynoldsburg Field Office

More than 200 Karner blue butterflies in the wild at The Nature Conservancy's Kitty Todd Preserve were successfully monitored during 1998. More than 600 eggs, 400 larvae, and less than 40 adult Karner blues were successfully monitored in captivity at the Toledo Zoo in Ohio. The Toledo Zoo signed grant agreements with the Service's Reynoldsburg Field Office and with the Ohio Division of Wildlife. The agreements make funds available for monitoring for each of five years during which Karner blues are being reintroduced to Ohio. **8/98**

■ **Welcome Signs Part of Lake Erie Water Snake Outreach Effort**

Reynoldsburg Field Office

On August 19, 1998, the U.S. Fish and Wildlife Service presented the mayor of Put-in-Bay, Ohio, (located on South Bass Island) with a Service-produced sign that declares, "Water Snakes Welcome Here." The sign includes a picture of a Lake Erie Water Snake and additional information about the snake. A similar presentation was made August 20, 1998, to the mayor of Kelley's Island, Ohio. The Ohio Department of Wildlife and private citizens were interviewed by Channel 8, Cleveland, Ohio, regarding the this outreach effort, which is proving successful in changing negative attitudes regarding the snake. **8/98**

■ **Service Informs NOAA: Coastal Zone Section 7 Consults Are Incomplete**

Reynoldsburg Field Office

At a Coastal Zone Management Workshop in Cleveland, Ohio, on August 8, 1998, Service staff informed officials at the National Oceanic and Atmospheric Administration that Endangered Species Act Section 7 consultation responsibilities are not being fully met for coastal zone management programs in Ohio and Michigan. Debate over Section 7 consultation pertinent to pre-project planning and post-project re-initiation has continued between NOAA and the Service since early 1997, especially because NOAA provides both project and program planning funds to state personnel implementing coastal zone management. Federally listed species are currently not addressed in all aspects of each state's coastal zone management program. **8/98**

■ **Service Coordinates Karner Blue Butterfly Protection, Spraying for Gypsy Moths**

Reynoldsburg Field Office

Reynoldsburg Field Office staff met with key agricultural partners to discuss safeguards for Karner blue butterflies in four northwest Ohio counties subject to gypsy moth spraying. The Endangered Species Act and Karner blue protection were discussed with gypsy moth coordinators from the Ohio Department of Agriculture on July 10, 1998, and Ohio Agricultural Extension August 8, 1998. All partners agreed to coordinate early on gypsy moth spraying and Karner blue protection in the four counties of concern. **8/98**

■ **Northern Monkshood Plant Restoration Continues in Northeast Ohio**

Reynoldsburg Field Office

Efforts continue in northeast Ohio to monitor, manage, and restore a population of the northern monkshood plant. The Service's Reynoldsburg, Ohio, office and the Ohio Division of Natural Areas and Preserves signed a cooperative agreement which commits Service funds for three years, starting in fiscal year 1998. Cooperative efforts are also being discussed with the Ohio Department of Transportation, the City of Cuyahoga Falls, Ohio, and Summit County, Ohio, Metroparks. Reduction or diversion of road salt run-off from a nearby highway is a key problem being discussed. **8/98**

■ **Final Restoration Plan for Midco I and II Completed**

Bloomington Field Station

A NRDA was previously conducted for damages at two Midwest Solvent Recovery Company (Midco) sites in Lake County, Indiana. In 1992, the Bongi property was transferred to the State with \$105,000 for restoration, rehabilitation, or replacement of resources injured on the two sites. Federal and State trustees completed a restoration plan to identify ways to restore the 258.8-acre property. It is the largest remnant of dune and swale habitat in the state, and one of the state's richest, supporting endangered plants and animals. The long-term viability of species on the property and an adjacent nature preserve depends on protection of the site. Implementation of the restoration plan is underway. **9/98**

■ **Service Gets Results of Ohio Lake Erie Water Snake Study**

Reynoldsburg Field Office

Results from a recent Lake Erie water snake population study were received by the Service on May 10 and Sept. 10, 1998. The results are the final set of information necessary for the Service to finish data evaluation and publish a listing decision. The study was initiated because a Congressional listing moratorium caused an earlier data set to become too old to allow a credible decision of whether or not to list. The study was performed by Dr. Richard King of Northern Illinois University. The study was jointly funded by the Ohio Division of Wildlife and the Service's Reynoldsburg, Ohio, Ecological Services office. **9/98**

■ **Ohio Public Embraces Lake Erie Water Snake Signs**

Reynoldsburg Field Office

Over 200 residents on four western Lake Erie islands have embraced Lake Erie water snake conservation signs they received during the summer months as part of a continuing public education campaign. The residents post the signs on docks, porches and elsewhere to show support for conserving Lake Erie water snakes. The signs have also been accepted by the governor of Ohio and the mayors of the Ohio island towns of Put-in-Bay and Kelleys Island. The signs were offered to over 900 residents living on four western Lake Erie islands. **9/98**

■ **Ashtabula River Partnership**

Reynoldsburg, Field Office

The lower Ashtabula River and near shore area of Lake Erie has been identified as an Area of Concern by the International Joint Commission. The Ashtabula River Partnership has been developing plans to remove and contain approximately 700,000 cubic yards of contaminated material from the lower portion of the river. Part of the project will be conducted under Section 312(b) of the Water Resource Development Act (WRDA) of 1990, (Environmental Dredging) as amended by Section 205 of WRDA of 1996. A Draft Comprehensive Management Plan and Environmental Impact Statement should be released for public review in early January, 1999. **9/98**

■ **Reynoldsburg Field Office Hosts Endangered Species Act-Bat Workshop**

Reynoldsburg Field Office

Reynoldsburg Field Office staff provided instruction on bat management and the Endangered Species Act to 70 people attending a bat workshop at Ohio's Kent State University September 3, 1998. A large cross section of people—from both public and private sectors—attended the workshop. **9/98**

■ **Service Improves Private Land Habitat for Karner Blue Butterfly in Ohio**

Reynoldsburg Field Office

During Fiscal Year 1998, habitat improvement efforts for the Karner blue butterfly on non-federal land were initiated. The U.S. Fish and Wildlife Service's Reynoldsburg Field Office signed an agreement with the Ohio Division of Natural Areas and Preserves. The cooperative agreement provides funds for improvement of Karner blue habitat on private land or other non-federal land in the oak openings region of northwest Ohio. Habitat improvements are already underway at The Nature Conservancy's Kitty Todd Preserve via separate agreement. **9/98**

■ **Settlement Funds Used for Indiana Wetland Enhancement Project**

Bloomington Field Office

Federal and state trustees completed a restoration plan in 1997 to compensate for natural resources injured at the Fisher-Calo Chemical site in LaPorte County, Indiana. Funds were secured through Natural Resource Damage Assessment settlement. As part of the restoration plan, trustees have a cooperative agreement with the Lake Heritage Parks Foundation to participate in the Goose Lake Wetland Enhancement Project in Lake County, Indiana. This project will restore 520 acres of wetlands for waterfowl, shorebirds, and other wildlife. It is located in what was once the largest inland wetland in the U.S., the Grand Kankakee Marsh, which was drained for farming. **9/98**

■ **Agencies Combine Capabilities to Survey Indiana Bats**

Reynoldsburg Field Office

State and federal agencies combined their capabilities to survey for Indiana bats and other bats in Ohio during Fiscal Year 1998. Four primary agencies are pooling funds, equipment, people, and coordination ability as part of an overall effort to better understand management of and habitat use by Indiana bats and other bats in Ohio. The agencies are the Reynoldsburg, Field Office, Ohio Division of Wildlife, Ohio Biological Survey and the U.S. Forest Service's Wayne National Forest. **7/98**

■ **Service Provides Endangered Species Instruction for Ohio Transportation Employees**

Reynoldsburg Field Office

Staff from the Reynoldsburg Field Office teaches Endangered Species Act Section 7 consultation quarterly to Ohio Department of Transportation employees and consultants. During Fiscal Year 1998, a total of 120 participants were educated about the Endangered Species Act, and the Section 7 consultation process. The course results in more efficient and thorough consultation regarding Federally listed species and transportation projects in Ohio. **9/98**

Upper Mississippi River-Tallgrass Prairie Ecosystem

■ **Agencies Negotiate Hydroelectric Projects on Lower Chippewa River**

Green Bay Field Office

The Fish and Wildlife Service and Wisconsin Department of Natural Resources have agreed to enter into settlement negotiations with Northern States Power Company relative to a system-wide evaluation of six hydroelectric (hydro) projects on the lower Chippewa River. Three of the hydro projects are currently up for re-licensing through the Federal Energy Regulatory Commission. The other three projects have been licensed by the Commission since the early 1980s. The proposed settlement agreement will encompass approximately 110 miles of the lower Chippewa River and result in resolution of several complex issues such as hydro system operations (e.g., discharge flows, water level fluctuations, and reservoir drawdowns), water quality certification, fish entrainment, land management and recreational use. Negotiations are expected to take one to two years before an agreement can be signed. **12/97**

■ **Rock Island Office Monitors Superfund Cleanups at Former Military Sites**

Rock Island Field Office

Contaminants specialists from the Rock Island Field Office continue to provide technical assistance to the Department of Defense and EPA on the remediation of contaminated areas at four current and past military installations. The installations include the Savanna Army Depot, Rock Island Arsenal, and Crab Orchard National Wildlife Refuge in Illinois and the Iowa Army Ammunition Plant, Burlington. Each site has endangered species issues (bald eagle and Indiana bat). The Service is developing contaminants effects criteria for the refuge which will be used for clean up strategies. **9/98**

■ **Rock Island ES Creates GIS Database to Track Superfund Progress**

Rock Island Field Office

The Rock Island Field Office created a Geographic Information System (GIS) to track the progress of Superfund and Oil Pollution Act sites with which the Rock Island Office is currently involved. The system includes wetland inventory maps and other map coverages linked to a database with information for each site. Partners include the Illinois Environmental Protection

■ **Service Part of Effort to Identify Environmentally Sensitive Areas**
Marion Sub Office

The Oil Pollution Act of 1990 requires the EPA and U.S. Coast Guard to prepare spill contingency plans for the entire country and mandated the documentation of spill-sensitive resources and potential spill sources. The Upper Mississippi River Basin Association (UMRBA) recently initiated an effort to identify and map sensitive resources and potential spill sources along the Middle Mississippi River (Open River) and develop a spill response atlas with this information. The Service participated in an interagency meeting to provide information concerning important fish and wildlife resources, including threatened and endangered species, and important habitats located in this reach of the Mississippi River to the UMRBA. The Service also provided an in-depth review of information in the draft Spill Response Atlas and worked with the U.S. Geological Survey to ensure its accuracy. This document will be an important tool for local planners to utilize in responding to spills. 6/98

■ **Micro-Model Benefits Fish and Wildlife Resources**
Marion Sub Office

The U.S. Army Corps of Engineers recently completed a micro-model study of a chronic dredging site located at the Bolter's Bar reach of the Upper Mississippi River in Pool 26. Past disposal actions for this dredging problem site have resulted in tree mortality and aquatic degradation. This micro-model study was recommended by the St. Louis District Avoid and Minimize Team which consists of members of the Corps of Engineers, Service, Illinois Department of Natural Resources and Missouri Department of Conservation. 8/98

■ **Stag Island Habitat Rehabilitation Completed**
Marion Sub Office

This summer the Stag Island Habitat Rehabilitation and Enhancement Project (HREP), developed under the Environmental Management Program, was completed by the Army Corps of Engineers and Missouri Department of Conservation. This unique HREP is located in Pool 25 at approximate Upper Mississippi River Mile 249.5. The project involved the construction of an emergent dike structure which will create

deepwater slough habitat that provides summer and winter refuge for fish, reduce sedimentation in the side channel and create slackwater habitat for migratory birds. This low - cost habitat enhancement project will protect and maintain approximately 367 acres of aquatic habitat. 8/98

■ **Rock Island Maps Mississippi River Resources Through GIS**
Rock Island Field Office

Staff from the Rock Island Field Office are currently working on an Geographic Information System (Arcview) to map the locations of significant natural resources on the Upper Mississippi and Illinois Rivers including fisheries habitats, waterfowl habitats and endangered species locations. Also being mapped are habitats impacted by navigation features such as dikes or dredging activities, and areas which can be enhanced with further management. This project is being developed as part of the Service coordination responsibilities with the Army Corps of Engineers for the Upper Mississippi System Navigation Study. State partners have expressed a high level of support for this project because of its management applications. 9/98

■ **Geographic Database Created to Track CERCLA Progress**
Rock Island Field Office

Field Office staff created a geographic information system in ArcView to track the progress of CERCLA (Superfund) and Oil Pollution Act sites with which the Rock Island Field Office is currently involved. The system includes wetland road waterway and other data layers which are being used to analyze impacts to wildlife and strategies to remediate impacts in conjunction with the U.S. Environmental Protection Agency and state trustees. 9/98

■ **Rock Island Conducts Mississippi River Water Quality Investigations**
Rock Island Field Office

The Rock Island Office conducted numerous water quality investigations on the Mississippi River. Staff provided important information to the states of Illinois and Iowa regarding renewal of permits for major point source discharges. Staff are continuing to investigate and report on bacterial contamination, dissolved oxygen sags and endangered mussels near suspect facilities. Our analysis will be important as total contaminant loadings will be examined by the U.S. Environmental Protection Agency in the near future. 9/98

■ **Chicago Field Office Publishes Guide to Native Plants**

Chicago Field Office

To meet a perceived need and to codify unpublished information, an interagency publication titled Native Plant Guide for Streams and Stormwater Facilities in Northeastern Illinois was completed and distributed. It has been highly acclaimed and will provide a tool for local planners, designers, and decision makers for using native plants along streams and around storm water basins to enhance wildlife habitat, water quality, and infiltration in the urban and suburban Chicago area. The Chicago Field Office provided technical assistance and primary authorship of this interagency publication which is available from all local Soil and Water Conservation Districts in Illinois. **1/98**

■ **Service Assists Corps' With Wetland Survey for Milan Bottoms Project**

Rock Island Field Office

The Rock Island Field Office provided technical assistance to the U.S. Army Corps of Engineers in surveying wetlands being considered for a Section 1135 project in Milan Bottoms Pool 16 of the Upper Mississippi River near the Quad Cities, Illinois. **FY98**

■ **Upper Mississippi River Conservation Committee Video Wins Award**

Rock Island Field Office

The Upper Mississippi River Conservation Committee video won first place in the media contest which focused on the Mississippi River. The Committee's video on the Upper Mississippi River won the first place media award at the Mississippi River Climate Conference held in St. Louis, Mo., this past spring. **FY98**

■ **Upper Mississippi River Conservation Committee Coordination Work**

Rock Island Field Office

The Service's Rock Island Field Office accomplished numerous tasks throughout the fiscal year as coordinator for the Upper Mississippi River Conservation Committee (UMRCC.) The office published five newsletters on Upper Mississippi River news items, coordinated the UMRCC annual meeting and meetings for five technical sections, published annual proceedings, represented UMRCC at several Upper Mississippi River meetings, prepared reports and correspondence for UMRCC Executive Board and initiated UMRCC web page. **FY98**

■ **Illinois Department of Natural Resources Conservation 2000-Rock River Partnership**

Rock Island Field Office

Rock Island Field Office produced GIS maps of the Rock River Partnership Area and provided a staff person to serve on the Executive Committee to provide guidance on C-2000 grants. **FY98**

■ **Upper Mississippi River Conservation Committee Web Page Established**

Rock Island Field Office

Through the Upper Mississippi River Conservation Committee (UMRCC,) staffed by Rock Island Field Office, a UMRCC web page was established to post information about upper Mississippi River natural resource issues and related activities. As a special feature, Rock Island Field Office provides a Coordinator for the Upper Mississippi River Conservation Committee, a 50 year - old organization of professional biologists from Minnesota, Wisconsin, Iowa, Illinois and Missouri. **FY98**

■ **Watershed Assessment Completed for Upper Mississippi River National Wildlife and Fish Refuge**

Twin Cities Field Office

The Twin Cities Ecological Services Field Office worked with the LaCrosse District of the Upper Mississippi River National Wildlife and Fish Refuge to evaluate environmental contaminant issues in the Halfway Creek watershed of the Refuge. The Department of the Interior's Contaminant Assessment Process (CAP) Manual was utilized to document sources, pathways, and potential effects of contaminants. The CAP evaluation concluded that there is a potential for contaminant-related impacts to the Refuge; however, no problems have been reported to date. Recommendations from the assessment include: (1) the Service should continue partnership efforts in the watershed to prevent water quality degradation from increasing urban and residential development, permitted discharges, and agricultural land use; and (2) the Service should document baseline sediment quality conditions in the Refuge's Halfway Creek Marsh. These actions will help fulfill specific Refuge management objectives to influence habitat quality. **2/98**

■ **Flood Control Planning on Upper Mississippi River**

Rock Island Field Office

At the request of the Upper Mississippi, Illinois, and Missouri Rivers Association (UMIMRA,) the Rock Island Field Office provided the Service's point of contact for development of a comprehensive plan to address flood control, natural resource stewardship, and navigation. This initiative was presented at the annual Upper Mississippi River Summit. Field Office staff also provided a presentation at the annual UMIMRA meeting describing the Service's role in comprehensive planning and the position of the Service on flood plain management issues. **6/98**

■ **Habitat Enhancement for the Karner Blue Butterfly**

Twin Cities Field Office

This project funds two years of monitoring and habitat enhancement for the Karner Blue Butterfly, a federally-listed species, at Whitewater Wildlife Management Area. Whitewater Wildlife Management Area is the only place in Minnesota where the Karner Blue Butterfly is known to occur. This study will evaluate the population's status and evaluate techniques for improving habitat for the butterfly.

■ **Rock Island Field Office Attempts Pool 13 Drawdown on Mississippi River**

Rock Island Field Office

As chairman of the Fish and Wildlife Interagency Committee Water Level Management subgroup, Rock Island Field Office staff was the point-of-contact for a proposed water level drawdown of Mississippi River Navigation System Pool 13. The drawdown was sought by other federal and state biologists to evaluate the potential benefits of alternative water level management. The drawdown was attempted twice, but was overcome by high seasonal discharge fluctuations. A project review document is in preparation. **7/98**

■ **Northeast Illinois Wetland Account Funds 12 Projects**

Chicago Field Office

In 1996, the Service, the Chicago District of Army Corps of Engineers and The Conservation Fund, a national not for profit conservation organization, entered into an agreement creating the Northeast Illinois Wetland Conservation Account. Through this account the Corps is able to direct funds which resolve section 404 permit non-compliance issues. The Conservation Fund maintains this

account, and together with the Chicago Field Office solicits and reviews proposals and assists in funding wetland restoration projects in northeastern Illinois. To date over \$1.1 million has been committed to 33 wetland restoration, enhancement, education and acquisition projects directly impacting almost 970 acres of habitat in the greater Chicago metropolitan area and improving management capabilities on another 720 acres. These projects will have an approximate total cost of over \$3.9 million when completed. **8/98**

■ **Advanced Identification Study of Illinois Wetlands Nears Completion**

Chicago Field Office

The ADvanced IDentification (ADID) study of McHenry County, Illinois, wetlands is nearing completion. A user-friendly, compact disc-based product is expected to be available by early fall. The Northeastern Illinois Planning Commission is putting the final touches on the database of wetland functions information that will be associated with the maps in a GIS type format on cd-rom. This product will enable landowners, developers, and local planners to easily access information on the wetland, lakes, and streams of McHenry County. The database will contain information on the functions and quality of most wetlands greater than two acres in size throughout the county. Service staff played a key role in methods development, policy and planning decisions, and all field work associated with the project and will continue to utilize the results of the study in reviewing permit applications and in working directly with private landowners and municipalities. **8/98**

■ **Study of Zebra Mussels, Navigation Continues at Prairie du Chien**

Twin Cities Field Office

The Twin Cities and Rock Island Field Offices contributed funds, technical assistance, and workers to another year of Higgins' eye pearlymussel and zebra mussel survey at Prairie du Chien, Wisconsin, location of the largest-known, best-producing Higgins' eye pearlymussel beds. The study, part of a multi-year project conducted by the Army Corps of Engineers Waterways Experimental Station, was designed by Corps, state, and federal conservation agencies, and conservation groups to document the effects of commercial navigation connected with Lock and Dam 26 improvements. The study is continued at Prairie du Chien to study the impact of the Corps' navigation projects and two barge terminal projects on the Higgins' eye, and to document the invasion and impacts of zebra mussels in this key mussel bed. State and federal agencies and the two barge terminal companies support the project. **8/98**

■ **Service Studies Potential Toxic Threats to Leedy's Roseroot**

Twin Cities Field Office

The Twin Cities Field Office initiated a collaborative project with the Minnesota Departments of Agriculture and Natural Resources to evaluate potential sources and pathways of toxic pollutants which may be affecting the federally-threatened Leedy's roseroot plant in southeastern Minnesota. This effort is beginning with a comparative assessment of hydrological and geological information in relation to land use for the study area. The evaluation will determine if the potential contaminant threat can be effectively disregarded, or if it should be examined more thoroughly through the Service's environmental contaminants investigation process. Resource managers responsible for the conservation and protection of the Leedy's roseroot identify this effort as instrumental to the recovery of the species. The Service is utilizing Endangered Species and Environmental Contaminants Programs to assist in this project, along with additional funding in Fiscal Year 1999. **8/98**

■ **Damage Assessment Conducted at Three Trout Lily Sites**

Twin Cities Field Office

Floods and torrential rains in 1998 caused serious streambank erosion and slope erosion (slope slippage) at three principal Minnesota dwarf trout

lily sites. Prompt damage assessment is necessary in order to develop timely remedial action (e.g., streambank stabilization, boardwalk trail rerouting, hillside erosion control measures). In response to an urgent Minnesota Department of Natural Resources request for funding assistance, the Service's Twin Cities Field Office provided funds for survey and damage analysis at the three sites. **8/98**

■ **Service Helps Modify Eddyville Bypass Plan, Saves Wetland Habitat**

Rock Island Field Office

The Service's Rock Island Field Office recently coordinated efforts with other state and federal resource agencies to modify a planned highway project near Eddyville, Iowa, to protect habitat for the Iowa State - listed tubercled orchid. The Service was instrumental in providing highway planners alternatives to the project that would have bisected a unique complex of sand prairie and wetlands east of the Des Moines River near Eddyville. As a result, damage to wetlands that support a population of the State - listed tubercled orchid, and much of the better quality habitat on the dune prairie complex will be avoided.

■ **Service, Corps of Engineers Consult on American Bottoms Ecosystem Restorations**

Marion Sub Office

The Service, in conjunction with other state and federal agencies, is consulting with the Army Corps of Engineers on its plan for an ecosystem restoration project with flood control benefits in the American Bottoms of the Mississippi River floodplain in Madison and St. Clair counties, Illinois. The American Bottoms was once a large expanse of wet prairie and floodplain forest intermixed with Mississippi River oxbows and sloughs. This portion of the Mississippi River floodplain is approximately 11 miles wide. Much of the wetland area has been lost due to large scale development and agriculture. The remaining wetlands are being degraded by adjacent floodplain development and sediment deposition as a result of increased development in the uplands. Even so, this area provides valuable habitat for a tremendous number of migratory birds, including one of the largest heron rookeries in the state. As originally proposed, this planning effort focused largely on the development of large detention basins in the floodplain. The Service objects to such a small-scale view of this effort. As a result, the Corps has agreed to give further consideration to addressing increased urban

runoff in the uplands and its associated stream channel erosion. **9/98**

■ **Impacts to Engeldinger Marsh Avoided**

Rock Island Field Office

Nearly two years of efforts by Rock Island Field Office staff, other federal and state resource agencies and non-governmental conservation groups have forced the Iowa Department of Transportation and Federal Highway Administration to abandon plans to build two new lanes of U.S. 65 through Engeldinger Marsh. The marsh is the best remaining example of a kettle wetland in the end moraine of the Des Moines lobe, even though U.S. 65 was built through it in the 1920s. Alternatives avoid the marsh entirely, and compensatory mitigation may largely restore it by removing the existing roadbed and a silt fan. **9/98**

■ **Fifty-Seven Trained in Wetland Delineation**

Rock Island Field Office

The Rock Island Field Office, as a member of the 1994 Agriculture Memorandum of Agreement interagency team, provided instruction to 57 state and federal agency personnel on wetland delineation in training conducted in Iowa and Illinois during Fiscal Year 1998. The majority of students were Natural Resources Conservation Service field personnel, with U.S. Environmental Protection Agency, U.S. Fish and Wildlife Service, Iowa and Illinois Department of Natural Resources personnel comprising fewer than 10 students in the aggregate. **9/98**

■ **Leedy's Roseroot Recovery Plan Approved**

Twin Cities Field Office

The final recovery plan for Leedy's roseroot (*Sedum intergrifolium ssp. leedyi*) was approved by Region 3 Acting Regional Director John Blankenship on September 25, 1998. The plan presents the natural history of the species, discusses problems facing the species, and identifies recovery actions for the species throughout its range (Fillmore and Olmsted counties, Minnesota; Schuyler and Yates counties, New York). The plan was written by species expert Nancy Sather, Minnesota Department of Natural Resources, with participation by Minnesota and New York offices of The Nature Conservancy, New York State Department of Environmental Conservation, University of Minnesota species experts, Walnut Grove Landowners Association (New York), and the Twin Cities (Minnesota) and Cortland (New York) Ecological Services Field Offices. **9/98**

■ **Chicago Field Office Supports Grassland Restoration in Northeast Illinois**

Chicago Field Office

The Chicago Illinois Field Office provided support to the U.S. Forest Service to restore 500 acres of crop land to grassland habitat at Midewin National Tallgrass Prairie. Midewin is the site of the former Joliet Arsenal, portions of which have recently been turned over to the U.S. Forest Service. Much of the site is in agricultural leases and is being restored to grassland as funding becomes available. The area restored through this project is adjacent to existing grassland which support Henslow's Sparrows, Bobolinks, Grasshopper Sparrows, Eastern Meadowlarks, and other species of declining grassland birds. This project will significantly increase the available habitat for these species. **9/98**

■ **Service Lists Illinois Cave Amphipod as Endangered**

Rock Island Field Office

The U.S. Fish and Wildlife Service's Rock Island Field Office completed the listing package for the Illinois cave amphipod and the Final Rule was published in the Federal Register on September 3, 1998. The amphipod is an endemic species of the Illinois sinkhole plain and is found in only four cave stream systems. Threats to the species consist of degraded water ground water quality caused by contamination from agri-chemicals, residential septic systems and livestock feedlots. **9/98**

■ **Chicago Field Office Assists in Two Schoolyard Habitat Projects in FY98**

Chicago Field Office

Schoolyard Habitat programs are being initiated by a growing number of schools around the nation. The National Wildlife Federation has pioneered a program to encourage these activities and the Service has been a willing partner on projects and workshops with the Federation nationally. The Chicago Field Office has worked with a number of schools in the past to facilitate the development of successful schoolyard habitat projects in a variety of settings. The Chicago Field Office has provided appropriate technical guidance and some cost share assistance to schools to assist in their programs. Our involvement in these efforts enable the school staff and others to maximize student and community involvement and overcome school system challenges and site limitations. **9/98**

■ **Chicago Field Office Supports Chicago's Urban Resources Partnership**

Chicago Field Office

Many urban residents, community organizations, and local officials are interested in improving their local environments, but they usually do not know who to contact for technical assistance or sources of funding. In 1994, the U.S. Department of Agriculture contacted federal natural resource agencies in four U.S. cities to develop an Urban Resources Partnership. There are currently eight such partnerships throughout the U.S. These partnerships serve as a point of contact for community organizations and local officials searching for technical assistance and project funding. The Chicago Field Office participated in selecting community-driven natural resource projects for funding and technical assistance. The Office's Partners for Wildlife biologist and environmental education specialist worked with other federal partners, community organizations, and local officials to identify site management techniques, remove non-native plants, select and plant native prairie and wetland plants, and conduct informational workshops, school presentations, and special events. These partnerships enable the federal agencies to work together to promote all of our missions of natural resource conservation without duplicating our services in urban areas. Also, community organizations and local officials have a point of contact to the federal agencies and are able to learn about our agencies and our programs. Since its inception, the Chicago Urban Resources Partnership has funded 47 community-based natural resource projects, many of these involving the conversion of vacant land into green spaces used for recreation, education, and wildlife habitat. 9/98

■ **Horicon National Wildlife Refuge Environmental Education Programs**

Horicon National Wildlife Refuge

For the last quarter of the year (July through September), Horicon National Wildlife Refuge staff presented 25 environmental education programs to a variety of groups, mostly school and youth groups. Approximately 1,000 people attended the programs. One of the groups included 110 grade school kids from inner city Milwaukee, who enjoyed hiking for the first time in their lives and were excited to see grasshoppers, toads, and bats. 9/98

■ **Horicon National Wildlife Refuge Volunteers Contribute Nearly 1,000 Hours**

Horicon National Wildlife Refuge

During the last quarter of the fiscal year (July through September), volunteers at Horicon National Wildlife Refuge contributed almost 1,000 hours of their time, mostly in the biology and public use programs. About 175 of those hours were used in staffing the visitor center during the week and on September weekends. Through their efforts, over 2,500 visitors have enjoyed the exhibits, gift shop, deck, and spotting scopes. 9/98

■ **Service Funds Iowa's Census of Federally - Listed Rare Plants**

Rock Island Field Office

The Service's Rock Island Field Office funded the Iowa Department of Natural Resources and The Nature Conservancy to inventory several federally-threatened plant species in Iowa including the eastern and western prairie fringed orchids, Mead's milkweed and prairie bush clover. The census revealed that one population of the eastern prairie fringed orchid had exploded to more than 1,200 plants and is believed to be the largest population in the country. 9/98

■ **Service Funds University's Continued Radio-Tracking of Pallid Sturgeon**

Rock Island Field Office

The Rock Island Field Office funded Southern Illinois University to continue its radio-tracking of the pallid sturgeon, an endangered species, in the Middle Mississippi River below St. Louis, Missouri. Several years worth of data have been obtained to help biologists determine the riverine habitats utilized by this species. 9/98

■ **Service Helps Discourage Stream Channelization in Iowa**

Rock Island Field Office

Over the past year, Rock Island Field Office staff has worked with the Army Corps of Engineers to alter approximately 40 applications for Section 404 permits. These would have impacted nearly 18 miles of intermittent and upper perennial streams due to degradation or destruction of aquatic habitat, water quality, and stream bed degradation. To date, the Corps has issued a permit for only one of the projects, affecting approximately 1,500 linear feet. The balance of the proposals have been withdrawn by the applications following Service objections. 9/98

■ **Pool Management Agreement Includes Fish and Wildlife Monitoring**

Marion Sub Office

A grant agreement between the Service and Southern Illinois University at Carbondale, Ill., was recently amended to further efforts to monitor the effects of Environmental Pool Management in Pool 25 of the Upper Mississippi River on fish and wildlife resources. Some objectives of the agreement include: 1) determine the effects of pool management on fish abundance and diversity, 2) compare zooplankton community structure, abundance and standing crop biomass between vegetation-free and vegetated zones, and 3) measure vertebrate (fish and waterbird) response to the habitat. Environmental Pool Management was initiated in 1994 by the St. Louis District, U.S. Army Corps of Engineers at the request of resource management agencies. It involves manipulation of water levels in the pool reaches of the Upper Mississippi River to establish emergent vegetation. The areas affected by this type of management would normally be flooded or barren mud flats under more traditional water level management. The Corps utilizes its current flexibility for managing water levels for environmental benefits while maintaining the nine-foot navigation channel. **9/98**

■ **Water Levels Studied on the Upper Mississippi River**

Twin Cities Field Office

Planning continues for a possible 1-3 foot drawdown in Pool 8 of the Upper Mississippi River in the year 2000. The Corps of Engineers is in the process of conducting a feasibility study. Public and interagency meetings are on - going. Drawdowns are being conducted to evaluate their effectiveness as a management tool in restoring aquatic vegetation on the upper Mississippi River. **9/98**

Mississippi Headwaters - Tallgrass Prairie Ecosystem

■ **Population and Viability Analysis Held for Rare Goblin Fern**

Twin Cities Field Office

The Twin Cities Field Office served on the steering committee and participated in a U.S. Forest Service-sponsored population and habitat viability analysis workshop for *Botrichium mormo*, goblin fern. The viability analysis was conducted by the Conservation Breeding Specialist Group, Apple Valley, Minnesota. Participants included state, tribal, and federal conservation agency personnel; academic experts, and interested citizens. The final report will contain current information on the species and current thinking on problems and actions to protect and maintain the species. **10/97**

■ **Role in St. Croix Zebra Mussel Program Continues**

Twin Cities Field Office

The Twin Cities Field Office and the LaCrosse Fisheries Resources Office participated in the multi agency State-Federal zebra mussel response team that organized and conducted a search for zebra mussels in the drawdown flowage of a hydro dam on the St. Croix River. The power company cooperated by drawing down the reservoir after zebra mussels were reported on a zebra mussel sampler in the flowage. Zebra mussels are of particular concern in the St. Croix in part because the river hosts two federally endangered mussels (winged mapleleaf and Higgins' eye) plus Minnesota and Wisconsin listed mussels. State and federal agencies have cooperated for several years in an effort, successful to date, to keep zebra mussels from spreading up the St. Croix. To the relief of all, no zebra mussels were found in the drawdown search. **10/97**

■ **Population and Habitat Viability Analysis Workshop Held for Winged Mapleleaf Mussel**

Twin Cities Field Office

The U.S. Fish and Wildlife Services Twin Cities Field Office recently sponsored, a population and habitat viability analysis workshop for the federally-endangered Winged mapleleaf mussel. The workshop was conducted at no cost by the Conservation Breeding Specialist Group of Apple Valley, Minnesota. Participants included representatives of state and federal conservation agencies, private mussel consultants, academic experts, and power company and state highway departments. The final report contains current information on the species and current thinking on problems and recommended actions to preserve and recover the species. **12/97**

■ **Lower St. Croix Task Force Completes Planning**

Twin Cities Field Office

The Twin Cities Field Office participated as one of sometimes more than 200 members of the Lower St. Croix Planning Task Force. Task Force members represented a wide variety of interests (boating, private shoreland landowners, National Park Service, Minnesota and Wisconsin Department of Natural Resources, Minnesota-Wisconsin Boundary Area Commission) who were challenged to identify issues and come up with recommendations of how the Lower St. Croix National Scenic Riverway should be managed over the next 20 years. Task force members agreed on 62 of 66 management issues. The results of the task force will be used by the National Park Service in the development of a new General Management Plan for the Riverway. **4/98**

■ **Minnesota Department of Natural Resources Denies Road Construction Permit Through Savage Fen**

Twin Cities Field Office

The Minnesota Department of Natural Resources denied a permit under the state's Wetland Conservation Act to Scott County for its plan to construct a four-lane, \$2.75 million road through the Savage Fen. Fens are very rare wetlands and this is one of the largest remaining fens. Approximately 90 acres of the 425-acre Fen are a part of Minnesota Valley National Wildlife Refuge. The County later decided not to appeal the Department of Natural Resources's decision. The Twin Cities Field Office and many other entities have opposed this road for 15 years as

being unnecessary and causing substantial environmental harm. **5/98**

■ **Cable Pipe Breaks While Crossing St. Croix River**

Twin Cities Field Office

A video cable pipe being installed by Media One under the St. Croix River late last month broke through the substrate and had to be cut. Drilling muds could have been released when the pipe broke. The area is essential habitat for the federally endangered Higgins' Eye Pearly Mussel. Service biologist, Nick Rowse, through the Army Corps of Engineers, got the work stopped. He then conducted an informal consultation with Corps of Engineers staff, who had permitted the activity, and the company, to assess any damages to the river and the mussel bed. A dive survey was conducted on July 1, 1998, and found no damage to the mussel bed. Reboring was subsequently authorized by the Corps and completed on July 14. Pipe will be installed later. A followup dive will be done later in the summer. **7/98**

■ **Endangered Species De-Listing Paper Presented at Midwest Raptor Symposium**

Twin Cities Field Office

Chuck Kjos of the Twin Cities Field Office presented a paper on endangered species de-listing to the Midwest Raptor Symposium at the University of Minnesota Raptor Center. In particular, the paper addressed the de-listing of the American peregrine falcon. The presentation was in response to widespread interest and anticipation of a Service proposal to delist the American peregrine falcon. The symposium was an effective forum for Service information and outreach because most of the individuals, institutions, and agencies involved in peregrine recovery, as well as many concerned individuals, attended. **3/98**

■ **Pre-listing Recovery Project Funded for Dakota Skipper Butterfly**

Twin Cities Field Office

The Dakota skipper, a small prairie butterfly, was the subject of a petition to list under the Endangered Species Act. The Service found listing to be not-warranted, but also believes pre-listing conservation must be undertaken to prevent future need to propose the species for listing. Funded Dakota skipper projects included work in all three states of its range (Minnesota, North Dakota, and South Dakota). Twin Cities Field Office is coordinating the effort that

involves the Pierre and Bismarck field offices; Big Stone National Wildlife Refuge, Minnesota, North Dakota and South Dakota natural resource agencies; and academic species experts. The Minnesota Department of Natural Resources was funded to develop management strategies and a management plan for the Dakota skipper population found at Big Stone National Wildlife Refuge. Refuge staff will be cooperating on the development of the plan and its subsequent implementation. Sites with known Dakota skippers have been provided to the Tallgrass Prairie Coordinator and Realty Ascertainment staff so they can be given high priority in tallgrass prairie acquisitions. **6/98**

■ **Project Examines Management of Western Prairie Fringed Orchid**

Twin Cities Field Office

The Twin Cities Field Office, in cooperation with the Minnesota Department of Natural Resources and The Nature Conservancy, is conducting a project to examine the response of western prairie fringed orchids to four experimental management regimes. The western prairie fringed orchid is a federally listed plant found in prairies of western Minnesota. The project will examine the plant's responses to: spring prescribed burn, every year; fall prescribed burn, every four years; annual mid-summer mowing; and annual fall mowing. Through the year 2001 the Service will receive annual reports detailing the experimental management and the vegetative response of the orchid. This study will improve our knowledge of how areas should be managed for the western prairie fringed orchid. **6/98**

■ **Twin Cities Office Monitors Western Prairie Fringed Orchid**

Twin Cities Field Office

The western prairie fringed orchid, a federally-listed plant, will be surveyed for flowering numbers and reproduction (new plants, seed production) at Blue Mounds State Park, Burnham Wildlife Management Area, Pembine Trail Preserve, and Crookston Prairie. Monitoring such as this enables us to keep track of the health of populations of federally-listed species. **6/98**

■ **Twin Cities Field Office to Survey Prairie Bush Clover**

Twin Cities Field Office

Prairie bush clover, a federally-listed plant, will be surveyed for flowering numbers and reproduction at Kilen Woods State Park. **7/98**

■ **Agreement Signed With Washington County Soil and Water Conservation District**

Twin Cities Field Office

The Twin Cities Field Office and the Washington County (Minn.) Soil and Water Conservation District entered into an agreement to restore wetlands and riparian lands in Washington County. Up to \$5,000 of restoration activities will be funded for FY 98-99. **8/98**

■ **Franconia Proposes Water Intake in St. Croix River**

Twin Cities Field Office

Franconia, Minnesota, has recently submitted an application to the Minnesota Department of Natural Resources to extend an intake pipe approximately 100 feet out into the substrate of the St. Croix River. The site is documented to have the winged mapleleaf and Higgins' eye pearly mussels, both of which are federally endangered. Twin Cities Field Office is working with the Minnesota Department of Natural Resources, U.S. Army Corps of Engineers, and the National Park Service to get Franconia to consider other alternatives which would supply adequate water for firefighting. Should Franconia apply to the Corps to construct the intake pipe, a formal Section 7 consultation would be required. **8/98**

■ **Report Describes Resources, Problems and Objectives for Grand Forks Flood Project**

Twin Cities Field Office

The Service has completed its final Fish and Wildlife Coordination Act Report for the Grand Forks, North Dakota, and East Grand Forks, Minnesota, Long Term Flood Abatement Project. The report describes the existing resources in the project area of the Red River of the North; identifies problems, needs and management objectives for the area's biological resources; provides input into the development of the project design; and makes recommendations to preserve, restore, or enhance environmental resources. The preferred alternative includes setback levees with a green way between them that will provide flood protection to the residents of Greater Grand Forks while minimize impacts to natural resources. **9/98**

■ **Expansion of Flying Cloud Airport
Proposed, Refuge Monitoring Noise Levels**

Twin Cities Field Office

The Metropolitan Airports Commission is proposing to expand the dual parallel runways at the Flying Cloud Airport in Hennepin County to handle larger business jet aircraft. This expansion will allow larger, noisier aircraft to use the airport, resulting in a Section 4(f) constructive use of the Upgrala/Wilkie units of Minnesota Valley National Wildlife Refuge. The Twin Cities Field Office and the Refuge recently recommended a noise monitoring station be set up to sample ambient noise for a four-week period. The Refuge and Twin Cities Field Office will be participating in a committee set up by MAC that includes local land and government interests that will address the noise issue. **9/98**

■ **Storm water Management Issues at
Minnesota Valley National Wildlife Refuge**

Twin Cities Field Office

The Twin Cities Ecological Services Field Office is assisting Minnesota Valley National Wildlife Refuge is addressing storm water management issues in the Refuge's Long Meadow Lake Unit. Previous environmental contaminant investigations documented toxic pollutants in Long Meadow Lake and upstream storm water detention basins. Spills and runoff from highly developed urban land use represent a continued problem for the refuge in this area. The Service has initiated an effort with local public officials and others in a partnership approach to hopefully re-design and retrofit existing storm water management techniques to enhance water quality and refuge resources. **9/98**

■ **Minnesota Wolf Management Roundtable
Reaches Consensus**

Twin Cities Field Office

The Minnesota Wolf Management Roundtable recently reached a consensus on issues to be addressed by the Minnesota Department of Natural Resources in developing its state's wolf management plan. Based on the consensus, Minnesota will be able to write a plan that allows the Service a stronger argument for de-listing. The Minnesota Wolf Management Roundtable consists of 34 voting members, 20 non-voting advisors and roughly 12 citizen observers. Paul Burke of the U.S. Fish and Wildlife Service's Twin Cities Field Office served as the Service's advisor to the Roundtable. As part of a four-step process, the Roundtable conducted a series of 12 public meetings which precede the drafting of the state

wolf management plan by Department of Natural Resources staff. Following public and interagency review, the plan will be presented to the state legislature for mark-up and final approval. Consensus was reached on the following issues: No sport season will be included in the plan. With carefully crafted rules, landowners will be allowed to shoot wolves caught in the act of depredation. Animal Damage Control (ADC) will continue under about the same restrictions, with the exception that "nuisance wolves" will now be subject to ADC action. Research will be conducted on nonlethal control measures. Compensation will be enhanced. Enforcement will be enhanced. Monitoring will be required at regular intervals. If the Minnesota wolf population drops to 1,600 animals, strict rules will be enforced to recover the population. There will be no geographic restriction for wolf range. There will be no restriction on wolf population size. The Roundtable will reconvene annually and at five years to reevaluate the efficacy of a sport season. Roundtable membership included representatives from Minnesota Tribes, conservation organizations, Minnesota Department of Natural Resources, user groups, private citizens and other government agencies. **9/98**

■ **Twin Cities Field Office Team to Analyze
Human-Caused Wolf Mortality**

Twin Cities Field Office

The U.S. Fish and Wildlife Service's Twin Cities Field Office has assembled a team to analyze 30 years worth of research data relating to human-caused wolf mortality in Minnesota. The team will analyze mortality data to formulate an estimate of future human-caused wolf mortality in Minnesota, where most of the nation's gray wolves are found. The four member team consists of Paul Burke, a Service biologist; Dr. Todd Fuller, research biologist and professor at the University of Massachusetts; Jean Cochrane, research biologist (former Service biologist) and Neal Darlow, a Service student intern. The team will employ meta-analysis or multiple regression analysis methods to accurately capture and analyze mortality data. The study should be completed by January, 1999, and will become a component of the Service's proposal to remove the gray wolf from the Endangered Species List. **9/98**

■ **Rock Island Continues Momentum for
Environmental Management Program**

Rock Island Field Office

Rock Island Field Office staff maintained interagency momentum on the development of a

habitat needs assessment for the Environmental Management Program. Information was gathered from other U.S. eco-regional assessments and disseminated to the interagency group for use in developing study plans.

Field office staff organized or assisted in several interagency meetings, developed project review drafts, and currently co-chairs this activity with the U.S. Army Corps of Engineers. **9/98**

■ **Draft Higgins' Eye Pearlymussel Recovery Plan Released**

Twin Cities Field Office

The Technical Agency Draft of the revised Higgins' eye pearlymussel was released for 60-day review on June 22, 1998. Expert peers and a wide range of impacted and interested parties received copies of the document for comment. **6/98**

■ **Natural Resource Damage Assessment Docket Review Completed**

East Lansing Field Office

The Service and five NRDA practitioners met with NRDA policy makers and program planners in Minneapolis on April 21-23, 1998, to discuss current and expected NRDA cases. Policy and expected funding needs through Fiscal Year 2000 were established. Legal status of cases were described so that Solicitor and litigation support needs could be determined. Information was shared among biologists and attorneys for similar states. **4/98**

■ **Scientific Consensus Reached on Dioxin and PCB Risk**

East Lansing Field Office

The Environmental Protection Agency and Department of the Interior organized a workshop on the application of 2,3,4,8-TCDD toxicity equivalency factors to fish and wildlife pursuant to the Service's Biological Opinion on the Great Lakes Water Quality Guidance. The workshop was held in Chicago on January 20-22, 1998. At the workshop, invited scientists from Europe and North America discussed the current way that risks to fish and wildlife from mixtures of dioxin-like compounds (including dioxins and PCBs) are assessed and concluded that the current methods used in the United States should be changed. The scientists agreed that a toxicity equivalency approach is technically more appropriate and reduces uncertainty relative to assessing risk to individual compounds. The results of the workshop will be published and presented to EPA's Scientific Advisory Board. The published results will also be used by agencies and private

parties in evaluating risks to fish and wildlife from these compounds. **1/98**

Ohio River Ecosystem

■ **Service Conducts Bat Survey at Indiana Army Ammunition Plant**

Bloomington Field Office

The report "1997 Bat Survey at the Indiana Army Ammunition Plant" was completed October 15, 1997. Indiana Army Ammunition Plant is located in Clark County, Indiana, south of Charlestown, Ind. During the summer of 1997, Bloomington Field Office conducted a mist net survey for bats at nine wooded riparian sites on the installation. A total of 48 bats representing five species, were captured. The total included 11 federally endangered gray bats. Four gray bats were fitted with miniature transmitters. Radio tracking provided evidence of a previously unknown maternity colony of gray bats at the Plant; there is only one other known maternity colony in Indiana. Female gray bats give birth to a single young in late May or early June. For about two months, from birth to weaning, females and their young are found in large maternity colonies in caves. Gray bats are highly selective in choosing caves; few caves meet the narrow requirements of the species. Therefore, management of existing maternity roost sites, such as the newly discovered site at Indiana Army Ammunition Plant, is considered essential to the recovery of this species. The Service is currently working with the Army to implement gray bat conservation measured at the Plant. **10/97**

■ **Bloomington Field Office Volunteers Construct Observation Platform**

Bloomington Field Station

The Bloomington Field Office organized volunteers and contributors and oversaw the construction of a parking lot and observation platform at the Restle Unit of Muscatatuck National Wildlife Refuge. The unit is located just outside Bloomington, Indiana. A total of 41 volunteers logged more than 300 hours constructing the parking lot, platform, and accessible walkway. The new facilities allow visitors to view the unit's wetland and associated wildlife. The platform is already being used by recreationists and bird watchers; a bald eagle was recently spotted at the wetland by observers using the platform. Volunteers provided cash and in-kind services and were instrumental in construction of the new facility. **11/97**

■ **Indiana Industrial Facility Funds Mussel Survey**

Bloomington Field Office

On March 30, 1998, an industrial facility in Warsaw, Indiana, spilled a solution of sodium hypochlorite (bleach) into Marsh Ditch, a small tributary of the Tippecanoe River. The Tippecanoe River is known to support 49 species of freshwater mussels, including at least two federally-endangered species. The U.S. Fish and Wildlife Service was notified of the spill a day or two after the event, and began working with state agencies to determine the impact of the spill on the native mussel population. After several discussions with the responsible facility, they agreed to fund a mussel survey along the Tippecanoe River, up to a mile and a quarter downstream of the outfall of Marsh Ditch. The survey did not find any federally-endangered species in this stretch, and did not detect any evidence of a mass die-off. The sampling, however, took place almost two months after the spill. The survey will also provide additional data on the condition of the mussel fauna in this stretch of the river. **6/98**

■ **Service Holds First Meeting With Darby Technical Work Panel**

Reynoldsburg Field Office

The Service conducted its first meeting for the proposed Darby Prairie National Wildlife Refuge with a select focus group of 30 invited representatives from agencies, government, and private organizations. The focus group has been given the title of Technical Work Panel and is voluntary in nature. Slightly more than 20 people attended the meeting which was facilitated by the Ohio State University Extension office. The purpose of the group is to provide constructive advice and suggestions that may enable the Service to build effective and reasonable alternatives, and work to improve communication and understanding among the various interests and focus input from stakeholders. **8/98**

■ **Mahoning River Sediment Removal Project**

Reynoldsburg Field Office

The Service recently forwarded its contribution to an Army Corps of Engineers study that aims to clean up a contaminated stretch of the Mahoning River in Ohio. The Corps of Engineers' Pittsburgh District initiated an environmental dredging

study (Sect 312b of Water Resource Development Act of 1990) for a 30-mile section of the Mahoning River from Warren, Ohio, downstream to the Pennsylvania border. The reconnaissance study will examine the degree of contamination and volume of sediments to be removed.

Contaminants include PCB's, PAH's and metals. The Service has provided a preliminary Planning Aid Report September 10, 1998, and will provide a Fish and Wildlife Coordination Act report if the study continues into the feasibility stage. **9/98**

■ **Service Contributes to Bat Voice Prints Study in Ohio**

Reynoldsburg Field Office

The Reynoldsburg Field Office contributed funds during Fiscal Year 1998 to a bat echolocation study. The study uses Anabat detector technology to record voice prints from different bat species. The study is meant to record data that may some day help distinguish endangered Indiana bats from other bat species using such voice prints. The study results will thus help establish needed survey techniques that detect Indiana bats. **8/98**

■ **Leading Creek Plan Drafted, \$1.9 Million Enhancement to Begin in 1999**

Reynoldsburg Field Office

Between July 30 and August 25, 1993 acid mine water from a catastrophic mine flood was released to Leading Creek in Meigs County, Ohio, killing aquatic life in Leading Creek. The ensuing court case resulted in a \$1.9 million damage settlement. The Justice Department tasked the Service with using the monies to enhance Leading Creek. As a prerequisite to spending the settlement funds, planners at Virginia Technical University were tasked to develop a plan for spending the funds. After two years in development, a draft, "Leading Creek Improvement Plan" (LCIP), was recently completed and reviewed. The final draft incorporating the many Service comments is now being prepared by Virginia Tech. The final LCIP is expected to be approved by the end of the year, enabling funding for 1999 projects. The goal of these projects is to enhance Leading Creek Water Quality beyond the pre-incident quality. Other partners in the project include Department of Justice, American Electric Power (Southern Ohio Coal Company) Ohio EPA, U.S. EPA, Ohio Division of Wildlife and Virginia Technical University. **9/98**

■ **Settlement Funds Help Fund Restoration Projects at Columbia City, Indiana**

Bloomington Field Office

The Bloomington Field Office received funds in 1997 from a settlement related to a National Priorities List (Superfund) site in Columbia City, Whitley County, Indiana. A restoration plan was completed and projects were developed in coordination with the Private Lands Program at Bloomington Field Office. The goal of the restoration plan was to restore, replace, and/or acquire natural resources and habitat similar to those that were lost or injured. This project consisted of restoring almost four acres of wetland habitat in Whitley County. This was done using NRDA settlement money through the Partners for Fish and Wildlife Program. **9/98**

■ **Annual Zebra Mussel Assessment on the Ohio River**

Reynoldsburg Field Office

Representatives of the Reynoldsburg Field Office recently participated in the "Kentucky Baywatch," an annual assessment of the impact of zebra mussel on native mussels in the lower Ohio River. The study was organized by Patty Morrison of the Ohio River Islands National Wildlife Refuge. The study indicates that zebra mussels continue to seriously impact the native mussels. Of the few live freshwater mussels found in samples, most were encrusted with zebra mussels. Participants included biologists from the states of Kentucky, Indiana, and West Virginia. **9/98**

■ **Service Provides Public Radio Interview for Buffalo Clover**

Reynoldsburg Field Office

Service biologists were interviewed regarding the endangered plant called running buffalo clover. The interview was broadcast statewide in West Virginia and southern Ohio. The interview followed Secretary Bruce Babbitt's news release announcing de-listing or reclassification of several species by the Service. **5/98**

■ **Gray Bat Conservation Efforts at Indiana Army Ammunition Plant**

Bloomington Field Office

Bloomington Field Office conducted a survey for bats at Indiana Army Ammunition Plant in 1997, and found an unknown maternity colony of gray bats; only one other known maternity colony exists in Indiana. In 1998, the Army provided funds for the Service to conduct additional

research on the gray bats at the Plant. Nine bats were fitted with transmitters; radio tracking provided information on bat movement and ecology. The Army has announced plans to close the Indiana Plant and is cooperating closely with the Service to ensure bats are protected and Endangered Species Act requirements are met during the closure process. Results of research conducted at the Plant during the last two summers will be used to formulate gray bat conservation strategies to incorporate in the closure process. **6/98**

■ **Congresswoman Calls Meeting to Address National Wildlife Refuge Project**

Reynoldsburg Field Office

U.S. Representative Deborah Pryce, asked Service representatives to attend a meeting on June 12, 1998, to respond to several inquiries from her constituents. The congresswoman did not attend but asked her staff to moderate the meeting.

Representatives from The Nature Conservancy, the Madison County Engineer and Operation Future Association were present. The Service was the focal point of the discussion. The Madison County Engineer substantiated development pressures in the county in support of The Nature Conservancy and the Service. **6/98**

■ **Madison Commissioners Investigate Refuge Economics**

Reynoldsburg Field Office

Ohio State University Extension staff requested William Hegge, of the Reynoldsburg Field Office attend a Madison County, Ohio, Commissioners meeting to review economic information related to Madison county. The proposed Darby Prairie National Wildlife Refuge was the focus of discussion. **6/98**

■ **Service Briefs Soil and Water Conservation District Supervisors about Refuge Proposal**

Reynoldsburg Field Office

A Service representative briefed approximately 100 people attending the statewide Soil and Water Conservation District Supervisors School about the Service's plans for the proposed Darby Prairie National Wildlife Refuge. People from throughout the state attended. No new questions regarding the proposal were raised. The event took place at one of the Operation Future Association task force member's farm in Madison County, Ohio. **7/98**

■ **American Burying Beetle Reintroduced in Ohio**

Reynoldsburg Field Office

Twenty-eight pairs of American burying beetles were reintroduced to southeast Ohio on July 24, 1998. Monitoring through the summer months has documented successful reproduction among many of the pairs. This is an important recovery step for this beetle species. If the Ohio population remains established and stable over a few years, recovery criteria will be met which allows eventual reclassification to threatened status. **7/98**

■ **Purple Cat's Paw Mussel Watershed Improvement Fund Established**

Reynoldsburg Field Office

A watershed habitat improvement project fund has been established for the drainage containing highly endangered purple cat's paw pearly mussels in Ohio. A list of priority projects has been established and landowner contacts are now beginning. Funds were contributed primarily from the Ohio Division of Wildlife, the Service's Ohio River Valley Ecosystem Team, and the Service's Reynoldsburg Field Office. **9/98**

■ **Wayne National Forest Consults Service on Endangered Indiana Bat**

Reynoldsburg Field Office

The U.S. Forest Service's Wayne National Forest has agreed to consult programmatically with the Service on federally threatened and endangered species located in southeast Ohio. The programmatic consultation will focus most on the endangered Indiana bat. Five years of project-level informal consultations (Section 7, Endangered Species Act) preceded the decision to consult programmatically on all pertinent federally-listed species. **9/98**

■ **U.S. Fish and Wildlife Service, Forest Service, Partner to Study Indiana Bat Habitat**

Reynoldsburg Field Office

The Service's Reynoldsburg Field Office has signed a grant agreement with the Ohio Division of Wildlife to help fund an Indiana bat habitat use study on the Wayne National Forest in southeast Ohio. The U.S. Forest Service is providing an additional \$65,000 to ensure completion of the study. The study will produce results necessary for more effective management of Indiana bats and timber harvest on national forests in the Midwest and Southeast United States. **9/98**

■ **Mahoning River Environmental Dredging**

Reynoldsburg Field Office

The Pittsburgh District, Army Corps of Engineers, has initiated an environmental dredging study of 30 miles of the Mahoning River from Warren, Ohio, downstream to the Ohio-Pennsylvania state line. The reconnaissance study will examine the degree and volume of sediment contamination and propose actions needed to remove and dispose of the sediments. Contaminants include PCBs and PAHs and metals. The Service has provided a preliminary Planning Aid Letter and will provide a Fish and Wildlife Coordination Act Report during the feasibility stage of the study. **9/98**

■ **Seven Year Southeast Ohio Mussel Refugia Study Underway**

Reynoldsburg Field Office

During Fiscal Year 1998, the first year of an important seven-year mussel refugia study was completed in southeastern Ohio. Approximately 200 mussels of four different common species were collected to begin a study of how best to utilize isolated ponds as refuges for native mussels. Results from the study will help us understand better how to utilize such refugia to protect native endangered mussels against such threats as zebra mussel invasions and river channel alterations. The ponds are on land provided by the International Center for the Preservation of Wild Animals, Inc. ("The Wilds") in Zanesville, Ohio. Funds for the study are provided via cooperative agreements between the Service's Reynoldsburg, Field Office, the Ohio Division of Wildlife, and the Ohio Biological Survey. **9/98**

■ **Two-Year Study of Indiana Bats Helps Educate Ohio Residents**

Reynoldsburg Field Office

During Fiscal Year 1998, the Ohio Biological Survey and the Service's Reynoldsburg Field Office completed the first year of a two-year effort to study bats and educate the public about the mammals in two southwest Ohio counties. The study centers on a ten kilometer radius around Ohio's first known maternity colony location. Public programs, local surveys, local tips on bat locations, media articles, landowner contacts, and data collection all occurred within the study areas during Fiscal Year 1998. So far, the local public is very receptive to bats and bat conservation. **9/98**

■ **Proposed Darby Prairie Refuge Presented at University's Farm Science Review**

Reynoldsburg Field Office

The Darby Prairie National Wildlife Refuge proposal was exhibited at the annual Ohio State University Farm Science Review from September 22 -24. Approximately 2,000 - 3,000 people visited the conservation area of the Review. A number of people signed up to be on the mailing list for the project. **9/98**

■ **Reservoir Consultation Results in Habitat Protection for Indiana Bat**

Reynoldsburg Field Office

The Service has negotiated an interagency agreement that will protect nearly 300 acres of forest and wetland habitat should plans to expand an Illinois reservoir be approved. The City of Georgetown, Illinois, proposes to expand its existing water supply reservoir, located along the Little Vermilion River, from 55 acres to 297 acres. The proposed expansion will inundate approximately three miles of riparian corridor and approximately 152 acres of forest. The federally-endangered Indiana bat has been captured in the vicinity of the project area twice in recent years, including the capture of a post-lactating adult female. The Service concluded that the proposed lake expansion would adversely affect the Indiana bat and entered into formal consultation with the Louisville District, U.S. Army Corps of Engineers. As a result of the consultation, should the Section 404 permit be issued, the city will preserve approximately 242 acres of forested habitat utilizing conservation easements to prevent development. In addition, 51 acres of wetland mitigation will also have an easement preventing future development. These areas will provide suitable habitat for Indiana bats during the present and the future. The Service opposes the proposed expansion due to the overall impact to fish and wildlife resources. **9/98**

■ **Natural Resource Damage Assessment Initiated for Two Indiana Rivers**

Bloomington Field Office

A Natural Resource Damage Assessment has been initiated for the Little Mississinewa and Mississinewa Rivers in Randolph County, Indiana. In September 1997, a Pre-Assessment Screen and Determination was signed, allowing a NRDA to go forward. Subsequently, in October, 1997, and January, 1998, Notice of Intent letters were sent out to potentially responsible parties. Since that time, the natural resource trustees have been

preparing the Natural Resource Damage Assessment Plan. The Little Mississinewa and Mississinewa Rivers have been contaminated by polychlorinated biphenyls (PCBs). Past contaminant levels ranged from non-detected to 40 parts per million (ppm) in sediments. Recent data, however, has shown concentrations reaching as high as 2,300 ppm in sediments and 700 ppm in flood plain soils. Natural resources for which the Service has trustee responsibilities in the area include migratory birds, and the federally-endangered Indiana bat.

■ **Service, State Partners Complete Plan for Four Wetland Restorations**

Marion Sub Office

The Service, together with the NRCS and various county Soil and Water Conservation Districts recently completed plans for four wetland restoration projects funded through the Partners for Fish and Wildlife Program. The four projects are located in the southern Illinois counties of St. Clair, Lawrence, Richland and Williamson and total approximately 55 acres. Project construction is likely to begin either this fall or next summer when weather conditions permit. A number of additional site visits were completed this fiscal year to evaluate projects for habitat restoration. Some of these projects were funded through the NRCS Wildlife Habitat Improvement Program, or the Illinois Department of Natural Resources Conservation 2000 Program. Many other projects await further planning and funding. Technical assistance was also provided to the NRCS in developing habitat restoration plans for sites proposed for enrollment in the Wetland Reserve Program. Fifteen sites in nine counties were evaluated, totaling over 1,000 acres. **9/98**

■ **Proposed Darby Refuge Story Told to 'Successful Farming Radio Magazine'**

Reynoldsburg Field Office

Successful Farming Radio Magazine, a nationally syndicated radio program (North Shore Productions) has initiated what will become a four to five-day discussion of issues surrounding the proposed Darby Prairie National Wildlife Refuge. The radio program is based on Successful Farming Magazine. The Nature Conservancy-Ohio, and Operation Future Association are participating as well as other interested parties. The radio program is broadcast in 14 states. **4/98**

■ **Bloomington Field Office Consultation Limits Impact to Mussels in Tippecanoe River**

Bloomington Field Office

During routine review of a bridge construction project on Tippecanoe River in 1995, the Service's Bloomington Field Office determined the construction would adversely affect a mussel bed containing endangered clubshell and fanshell mussels. The Bloomington Field Office began formal consultation with the Federal Highway Administration, working with Indiana Department of Transportation. The consultation resulted in a cost-effective project design and mitigation that minimized habitat impacts, and relocation of the listed mussels. The biological opinion was issued during planning and design of the project so that no delays were necessary.

4/98

■ **Service Mitigation Helps Offset Environmental Impact to Ohio River Mussel Bed**

Bloomington Field Office

A large mussel bed is located in the Ohio River offshore from AK Steel's proposed industrial effluent outfall for its new facility in Spencer Co., Indiana. After reviewing AK Steel's waste water construction and National Pollutant Discharge Elimination System, permits, the Bloomington Field Office asked that the company relocate its outfall. When AK Steel refused, the Service negotiated an agreement addressing monitoring and mitigation to offset potential impacts on the mussel bed. As part of the agreement, AK Steel agreed to pay \$100,000 to the Mussel Mitigation Trust Fund, which funds research projects to benefit Ohio River mussels. Although impacts of the outfall will not be completely avoided, Bloomington Field Office devised a constructive solution to the problem. And, as the Trust produces more data, Bloomington Field Office will be better able to develop permit conditions tailored to mussel protection.

4/98

■ **Reynoldsburg Field Office Staff discuss Proposed Darby National Wildlife Refuge with Stakeholders**

Reynoldsburg Field Office

Service staff members from the Reynoldsburg Field Office met with Congressional representative, local landowners, representatives from non-profit conservation agencies, and other interested parties in a series of meetings designed to educate stakeholders on the proposed Darby National Wildlife Refuge.

2/98

■ **Jefferson Proving Ground Named 'Globally Important Bird Area'**

Bloomington Field Office

Jefferson Proving Ground, a former Army Ordnance testing site in southern Indiana, has been designated as a Globally Important Bird Area by the American Bird Conservancy, a not-for-profit conservation organization that promotes conservation of wild birds and their habitats. The site was recognized because it provides breeding habitat for one of the five largest remaining populations of Henslow's sparrows in the world. Breeding Bird Survey data indicate an average annual decline of 8.3 percent for Henslow's sparrows in North America (1966-1994), one of the steepest declines estimated for any North American breeding bird. In 1987, the Service identified Henslow's sparrow as a "migratory non-game bird of management concern in the United States." The American Bird Conservancy, through its designation of Jefferson Proving Ground as a Globally Important Bird Area, hopes the former military site will benefit from increased public awareness and enhanced habitat protection and management. The process of identifying these areas also helps build partnerships and cooperation among ornithologists, bird watchers, private landowners, and state and Federal agencies.

12/97

■ **Service Provides 'Notice of Intent' to Conduct Natural Resources Damage Assessments on Indiana Rivers**

Bloomington Field Office

Monitoring and data collection on the Little Mississinewa and Mississinewa Rivers in Randolph County, Indiana, indicates PCB's have been released into the rivers with concentrations in sediments as high as 2,300 parts per million. Trust resources for which the Department of Interior can assert trusteeship under CERCLA (Superfund) are likely to have been affected by the release. Indiana Department of Natural Resources, IDEM, and the Service have signed the pre-assessment screen, and notice of intent letters (to conduct a Natural Resources Damage Assessment) were sent October 22, 1997, to potentially responsible parties that include Westinghouse Electric Corporation, United Technologies Automotive, A.O. Smith Corporation, and Frank Miller Lumber Company.

12/97

■ **Status Assessment for Loggerhead Shrike Initiated**

Bloomington Field Office

A range-wide status assessment of the loggerhead shrike, a non-game bird of management concern was initiated. The purpose is to synthesize existing information on biology, population status, and conservation of the loggerhead shrike. The species is found across North America, but populations have declined continent-wide. Research, monitoring, and conservation needs will be identified. Information from the assessment will assist in determining if the species or any of its subspecies should be considered for listing as endangered or threatened. The assessment should be completed in Fiscal Year 1999. **3/98**

Ozark Watershed Ecosystem

■ **Columbia Field Office Hosts Freshwater Mussel Identification Workshop**

Columbia Field Office

The Columbia Ecological Services office sponsored a Meramec River Freshwater Mussel Identification Workshop at Meramec State Park, Missouri, September 9-11. The event allowed professional biologists from federal and state agencies and universities to become acquainted with the basic biology of freshwater mussels, learn techniques used to identify species, and gain hands-on experience with identification. Invited mussel biologists (Malacologists) from Missouri and surrounding states presented slide presentations, designed and attended shell workstations, and led field surveys in the Meramec River for participants. Partners in the workshop included Missouri Departments of Natural Resources and Conservation, Southwest Missouri State University, Missouri Western State College, Ecological Specialists, Inc. **9/98**

Lower Missouri River Ecosystem

■ **U.S. Fish and Wildlife Service Represented at Ecosystem Vulnerability Workshop**

East Lansing Field Office

Dr. Lisa Williams of the Service's East Lansing Field Office was an invited "learned listener" at the symposium entitled "Modeling and Measuring the Vulnerability of Ecosystems at Regional Scales for Use in Ecological Risk Assessment and Risk Management" and sponsored by the Society of Environmental Toxicology and Chemistry, U.S. EPA, and the American Society for Testing and Materials which was held in Seattle, Washington, August 17-21, 1998. The goal of the learned listeners in the symposium was to produce an expert review of what "ecosystem vulnerability" means, what tools are currently available to measure it, and what role it might play in the current ecosystem risk assessment/management paradigm. A draft report which summarized three days of presentations and two days of synthesis discussions was prepared by the learned listeners at the symposium. A final report will be published in a major professional environmental journal. **8/98**

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